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MEXICAN LINGUISTICS

INCLUDING

NAUATL *or* MEXICAN IN ARYAN PHONOLOGY

THE PRIMITIVE ARYANS OF AMERICA

A MEXICAN-ARYAN COMPARATIVE VOCABULARY

MORPHOLOGY AND THE MEXICAN VERB

AND

THE MEXICAN-ARYAN SIBILANTS

WITH AN APPENDIX ON COMPARATIVE SYNTAX

BY

T. S. DENISON, A.M.

TOGETHER WITH AN INTRODUCTION BY

H. W. MAGOUN, PH.D. (J.H.U.)

AUTHOR OF VARIOUS MONOGRAPHS AND PAPERS, INCLUDING THE EDITING OF A SANSKRIT MANUSCRIPT AND INVOLVING SUCH TOPICS AS COMPARATIVE RELIGION, PHILOLOGY, PROSODY, OLD TESTAMENT PROBLEMS, AND THE AUTHENTICITY OF ANCIENT DOCUMENTARY EVIDENCE

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ADDENDA ET CORRIGENDA 1

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INTRODUCTION

By occupation Thomas Stewart Denison was a business man, but by nature he was a linguist. From his childhood this fact was apparent. Even before he left the farm in the mountains of West Virginia he had begun the study of French, and, being the youngest of five children, his wishes in this matter were respected. He became a man of keen mind, an independent thinker, and a person of great persistence. It was this latter quality that determined his occupation; for, when he could not find a publisher to handle a play that he had written for the school he happened to be teaching, he published it himself. As the demand for copies grew, he went on with the work. Then he wrote other plays and published them, and gradually acquired a publishing business by this means. Almost before he realized it, he had become a fixture in that occupation, and his own productions had laid the foundation for his success. Some of his earliest plays are still in demand among amateurs in various parts of the country. He wrote between thirty and forty in all.

The human element was strong in Mr. Denison's nature, and this appears plainly in his literary productions. It is the main feature in the prolonged success of his writings for non-professional players. Wherever he went, it was in evidence. Having a phenomenal memory for words, he began at once to pick up the vernacular of any country that he happened to visit, and within a week he would be talking with the urchins that he chanced to meet on the public highways. He traveled extensively, made two trips to Europe, spent some time in Palestine and Egypt, and

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finally settled down to the investigation of ancient records in his own hemisphere. He was considering an extensive trip in Mexico[1] when he died; for it had become his one purpose in life to determine, if possible, what the true nature of the Mexican language really is.

In earlier years he had written a volume or two of poems besides several novels; for he was a man of wide interests, and he often felt that he had a message to deliver. He seldom wrote without a definite purpose, and this can be traced in most of his books. Ultimately he lost his interest in the literary productions of his younger days, because he had become absorbed in an attempt to solve a great world-problem, a thing which he had been assured could not possibly be done. To his mind that was a good reason for trying it, for he refused to be limited by the judgment of other men.

His democracy corresponded to his linguistic vision. Indeed, it might almost be said that it was as wide as the earth; for he was a natural champion of the down-trodden and oppressed. He had no use for sophistry, as those who ventured to cross swords with him soon found out. One experience along these lines was usually sufficient; for his wit was keen and could be biting, if the occasion demanded it. He had the directness and simplicity of greatness, and he was therefore occasionally misunderstood, his frankness being mistaken for bluntness. His early struggles with poverty may have contributed something to this characteristic, and they may have added to the intensity of his convictions, as they certainly did to his tenacity of purpose and his vigor of body. For a time he was a miner in the Rockies; but, ultimately, his college course having been

[1]He had already spent some time there, having made one or two trips previously.

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completed, he settled down to the life of a man who works with his brain rather than with his muscles.

A native has said that he spoke French without an accent. Italian was familiar to him; Spanish was easily mastered; Greek was his delight for many years; and he even became interested in the cuneiform inscriptions of the East. From these he turned to Sanskrit; for he had begun a search looking toward the discovery of some cognate speech with which he could link the tongue of Montezuma, since the proper classification of this language had now become his most fascinating quest. The idea of linking it, or attempting to do so, with any other language, especially with one that was oriental, seemed to many scholars an utter absurdity; and they laughed long and loudly at the bare suggestion.

The teachings of experience should have made them wiser. It is now less than thirty years since scientists were proclaiming in their classrooms and in their books that electric lighting would never be a practical success in our urban life. They had not reckoned with Edison, however, and they despised his opinion in all such matters. He said nothing and attended strictly to business. Denison was a man of the same stamp. If the thing was "impossible," it was worth trying, and he went at it with a determination to see what could be done.

He was not a professional linguist; but what of that? Edison was not a professional chemist; but he proceeded to find two substances that would dissolve urate of soda, as soon as he heard from a gouty friend that there was nothing that could be used for the purpose, in medicine, because there was no such substance except, possibly, carbonate of lithia, which was in doubt. As a result, the doctors now have tetra-ethyl-ammonium hydroxide in their

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materia medica, and the world is that much the wiser. Again, all the "authorities" were agreed that phosphorus could not be expelled from iron ores at high temperatures, because it would require a substance for a pot-lining that would stand 2500° F., and there was no such thing. In spite of their conclusions, however, two young men found such a material, and Bessemer steel is now made from low-grade ores in consequence.

The amateur has proved his right to a place in the world, and he is entitled to the world's respect. In fact, it has been abundantly shown that he may not only equal but also surpass the professional in almost any department of life, if he only has the necessary patience and perseverance. Mr. Denison had both to an unusual degree. He also had a devoted partner who was much interested in his work. For ten years this man, who is now his successor, carried all the details of the business himself so that Mr. Denison was left free to pursue his linguistic studies. He did so with great delight, in spite of the daily pain involved in the use of hands badly crippled with rheumatism. Every motion was disagreeable, and every movement made with a pencil was acutely registered on his sensory nerves; but he wrote out his conclusions just the same, and he wrote them legibly.

This habit of his proved to be a most fortunate one; for he died suddenly, soon after he had committed his last monograph to paper. He had not even revised it; but the manuscript was sufficiently clear, in nearly every detail, to enable the present writer, when it was placed in his hands, to get at his intention with due accuracy, from beginning to end. In a few cases he had evidently thought of adding something, or of modifying his statement in some way; but most of the additions had already been made, along

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with a number of erasures, where he had decided to restate some conclusion or alter his arrangement of evidence. Such changes as are usually necessary in revision had to be made. They were the result of slight errors in writing, due to the fact that the author's attention was concentrated on the thought to the exclusion of minor details. When these corrections were completed, a typewritten copy was prepared for the printer; but extreme care was taken not to alter or rearrange any part of the manuscript itself. It was to be presented as he would have had it printed if he had lived, and the sole effort was to attain to that end with a proper accuracy. For this reason Brugmann's abbreviation for Sanskrit (Skr.) was retained in place of the ordinary English one (Skt.).

As to the ultimate verdict concerning his work, it is too early as yet to speculate. He would be the last man to claim that it was final, in the shape in which he left it, but he believed with all his heart and soul that he had found too much material to have it rejected *in toto*. In this belief he died, after having at last received some encouragement from men of great attainments. Professor A. H. Sayce, whose breadth of mind and honesty of purpose are too well known to need exploiting here, wrote him from Egypt, saying of his work, "it is the first *scientific* attempt that has been made to establish a relationship between the American and Indo-European languages." He then went on to say: "But what are you going to do with the structure and grammar of Nauatl, by which, after all, linguistic relationship must be decided? And how is the geographical space between Central America and Western Asia to be filled up?" In his Appendix Mr. Denison tried to meet one of these points, but he had already postulated boats for the other, which he therefore passed by.

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In a later letter, Professor Sayce returned to the same questions, after saying: "I have much admiration for the patience and persistency with which you have pursued your researches, and for the very good case that you have made out for your theory." The material, therefore, impressed him by its character; but he had a very practical difficulty in seeing how the theory could be true in view of present geographical obstacles to the consummation of such a relationship, and he was also concerned as to grammatical questions. The latter consideration, however, is really of much less moment than it seems, as will appear later. Our own English is a non-inflected tongue, although one of its chief elements (Norman-French) came from Latin which was a well-inflected language, while its other main source (Anglo-Saxon) exhibits plainly six cases, especially in its adjectival and pronominal declensions, together with an occasional dual, besides having a degree of inflectional variation in its verbal forms such as only Biblical phraseology now duplicates in English.

The geographical difficulty is a genuine one, and it must be met. At the outset it seems like an insurmountable barrier; but it is not, as a matter of fact. At this point a bit of history may be in order. Less than thirty years ago, physicists were claiming with unwonted vigor that man could not have come from a single pair. They now say that he could not have come from anything else. The bearing of this on language will be considered later. The point to be enforced here is this. Imperfectly understood facts led to a conclusion that had to be rejected entirely as soon as the whole field had been canvassed, and, on this point, science and the Bible finally agreed. Man did start from a single pair, and he originated in a place well supplied with fruits. There is now a tendency that

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leans strongly toward postulating a pair of Siamese twins as the original Adam and Eve, and the rib story may yet be regarded as an oriental description of the parting of the two. The myths of many peoples favor such an outcome, and scientific theories of mutation seem to require just such an explanation, if they are sound.

Again, the origin of the North American Indian has long been in dispute; but it is now generally conceded that the theory of an Asiatic source is the true one. Race types show this beyond question; but there has always been a great and persistent difficulty as to how the red man first got here. Geology has at last solved that problem. Man was here during the Ice Age; but at that time North America and Europe were much higher, both relatively and actually, than they now are. The evidence on this point is overwhelming. But such a mass of world-material could not possibly be elevated five hundred feet on an average, which is much less than is generally postulated, unless some other portion of the earth's surface was correspondingly depressed. This should be self-evident, although no geologist seems to have thought of it. What, then, was depressed? All the oceanic islands show plainly that they underwent tremendous volcanic disturbances during Pleistocene times, and all of them contain evidence of a gigantic upheaval during the same age. Before that time, therefore, some portions of the ocean bed were much lower than they are in our day, and the sea itself was correspondingly affected.

But this is not all. Some six or eight million cubic miles of water had been withdrawn from the ocean by evaporation and deposited as snow on the continents in question and elsewhere. It formed the ice cap, so called. This explains why fossil remains indicate that the continental islands were once parts of the adjacent mainland, and it

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also implies that all the continents must then have been connected, with the possible exception of Australia. Alaska and Asia were unquestionably united, and Alaska had a temperate climate in spite of the fearful conditions that prevailed in Labrador. This, at least, is the testimony of the rocks, and the way is thus opened for the advent of the first occupants of North America.

They came from Asia,[1] and others may have come for many generations. When the ice cap was finally destroyed and the present adjustment was reached—a cataclysm involving the Biblical flood—they could no longer come on foot, but the habits of ancestral tribes continued through many ages might lead them, or others like them, to come by boat, and this seems to have been what actually happened. But is there any evidence for such a contention? Yes; there is. It is not yet published; but it will be ultimately, and it may not be a breach of confidence to say that the traditions of the Mayas of Yucatan supply the missing link. Their totem was the snake, and when they beheld white men on whose helmets a snake was embossed, they at once accepted them as blood brothers and a superior race. They were awed, not only by the complexion and air of the men, but also by their arms, which were overlaid with a film of gold and were therefore resplendent in the sunshine. My information on this point comes from a man who is a member of the tribe by adoption; for he has made it his life work to collect and preserve their records and archaeological remains. These white men came by boats, and they remained in the country.

Here, then, is the needed link in Mr. Denison's theory; for these particular immigrants were probably Aryans. They could hardly have been anything else, from the indi-

[1] See *Records of the Past*, Vol. XI, pp. 23 ff.

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cations and the history of past ages. They were white and they were warriors and they sailed the sea with confidence. They were, therefore, masterful men. They were in search of new and better homes, and when they found what satisfied them, they remained there. Now, these are all Aryan traits, and they have been through the ages. The Semites migrate also; but it is usually the result of compulsion. They do not change their habitation from choice. Some necessity that compels obedience drives them forth. Otherwise, they stay where they are, and they are traders by preference rather than warriors. The Aryans have been warriors from the beginning. The Semites have generally avoided war if they could, though they have fought most desperately when at bay. The Semites do not take kindly to the sea, and the warring tribes of Central Asia do not. The Aryans, on the other hand, are fond of the great deep, and they have sailed it from choice for untold centuries.

One significant fact should now be mentioned. It has long been recognized that certain astronomical symbols and methods of reckoning time that are found in Mexico and Peru are identical with symbols and methods that are known to have originated in Central Asia. It has been supposed that they came in from the north; but, if so, it is a curious fact that they are confined to these two regions where other remarkable evidences of a high state of civilization are found and found in abundance. If these things were brought into America by the land route, why did none of them find lodgement until these southern lands were reached? If, on the contrary, they came by sea with invaders that arrived by boat, possibly after long and extensive wanderings along the coasts of two continents, their peculiar development and localization can be accounted for.

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On the general linguistic question there is now a practical agreement. All the North American languages show the agglutinative characteristics found in the languages of Northern Asia, with little or none of the inflection so characteristic of the Aryan and Semitic groups. Siberia is said to abound in languages of this type, especially between the Ural River and the Altai Mountains. Some connection is also said to have been discovered between the dialects spoken by the aborigines of North America and those in use among certain tribes in central Siberia. This is significant as far as it goes. The classification of languages, however, as Agglutinative or Synthetic, as distinguished from Inflectional, not to mention other types, is not altogether satisfactory, as an example or two will show; and it will not do to depend upon it without restrictions.

Sanskrit is one of the oldest of the Aryan tongues, and it is a highly inflected language, not only in the character of its nominal, adjectival, and pronominal forms, with their eight cases and three numbers, but also in the extensive development of its verbs, of which there are nominally ten classes, the tenses regularly showing nine forms in their three numbers. And yet Sanskrit is capable of producing in all seriousness a compound like *bhāṇḍapūrṇakumbhakāramaṇḍapikāikadeça*, which is purely agglutinative, as it stands, and means "one-corner-of-a-small-shop-of-a-pot-maker-filled-with-earthenware." The word occurs in the *Hitopadeça*, in a fable concerning a Brahman who planned to get wealthy and marry four wives, but counted his chickens before they were hatched. In a somewhat similar way, Greek was capable of forming, in a spirit of mischief, the outrageous compound, meaning "hash," that is found at the end of the *Ecclesiazusae* of Aristophanes, a compound that by no means stands alone in the language of Aristotle.

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It is formed by combining the stems of all the words that are supposed to represent the various ingredients found in the different forms of that delectable dish, and it reads as follows:

σελαχογαλεοκρανιολειψανοδριμυποτριμματοσιλφιοπαραομελιτοκατακεχυμενοκιχλεπικοσσυφόφαττοπεριστεραλεκτρυονοπτερυγεφαλλιοκλιγκλοπελειολαγωοσιραιοβαφητραγανοπτερύγων.

English is closely related to both of these tongues and it therefore belongs in the same linguistic family; but it is practically non-inflectional, and it is but slightly agglutinative, position counting for much in its general structure and especially in its syntactical relations, a characteristic that is said to be highly developed in the Chinese languages. Again, German, which belongs in the same minor group as English, is fairly inflectional as it retains four cases and varies its verbal forms, but it is also fairly agglutinative, especially in its scientific terms, of which *Altertumswissenschaft* is an extremely mild example. English is beginning to take pattern with such terms as Ortho-Sulpho-Benzoic Acid and Para-Diazo-Meta-Toluene-Sulphonic Acid.

But English is also doing another thing; for it is developing a set of postpositions, to use a word apparently coined by Latham (*Dict.*, II, 568), which may be likened, in a general way, to those in use in Asiatic languages. There is this difference. In English these words always modify verbs, except in poetry, while in the Asiatic tongues they serve as postpositive prepositions, if such a nomenclature can be tolerated, or act almost as inflectional endings of the nouns they govern. An illustration will make the point clear.

A brilliant American scholar, during his university course in Germany, was told by a German fellow-student that English had no particles. He waited for an opportunity

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and then remarked: "I was broken in upon by somebody." "Broken in upon by!" exclaimed the puzzled German, "what is that?" "Only some of our English particles," was the answer. But "break in upon" is a verb with two postpositions, or adverbial affixes, attached to it as a part of its very essence, since all three words are necessary to express the thought, and all three go over into the passive voice in a body. Many such forms can be discovered in English, for its anomalies are by no means commonly understood. How many know, for instance, or have not forgotten, that the preposition "except" is really a verb in the imperative mode, or that "have lost" is, in origin, a flat contradiction? The hyphen has not yet asserted its right to a place in such forms as the one mentioned, but it will do so in the course of time.

It must now be clear that grammatical structure is not an infallible test of, or guide to, language relationships and never can be. The truth is that all these peculiarities overlap one another and do not remain separate characteristics of any given tongue, although some languages do retain their individuality and continue to be fairly pure in their linguistic features. Where two different tongues combine, as was the case in early English, a result differing to a greater or less degree from either is to be expected, since conflicting inflectional endings may mutually destroy one another, and what is practically a non-inflected tongue may thus be produced. Indeed, no other outcome is to be looked for under such conditions, because neither set of inflectional endings is likely to obtain the mastery. A mixture, moreover, is out of the question, and a combination is practically an impossibility.

On the basis laid down, Mexican was a mixed language containing two elements, the native tongue of the aborigines

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and the more elegant speech of the invading Aryans. It must, therefore, be more or less anomalous in its forms and grammatical relationships, and no other condition of things would be natural, provided this conjecture as to its true nature is correct. The tradition is there and the results of the Maya culture are there. Both are significant. To them must now be added the fossil remains unearthed by Mr. Denison in the language of the people; for there is too much material in his compilations to be lightly dismissed. Details are doubtless at fault in various places, and alternate conjectures tend to weaken the general effect of his conclusions; but it should be remembered that these same alternatives also show his openmindedness and his readiness to recognize the possibility that he had not diagnosed those particular cases with sufficient exactness to state them positively.

Mr. Denison was a pioneer in this work, and that must never be forgotten. As a pioneer he was necessarily hampered by the conditions found in the records, and he had to do the best he could with the materials at hand. That he spared no pains is evident from the months and years that he devoted to Brugmann's *Comparative Grammar*, and it is to be doubted whether any other American scholar has studied its conclusions more diligently than he did. His copy of the five volumes of this work (including the index) shows careful but incessant usage, and he was also a frequenter of libraries all his days in his search after truth. That he has accomplished his chosen task in a remarkably efficient way, when the obstacles that he had to overcome are considered, must be the ultimate conclusion, apparently, if he has fair treatment at the hands of scholars; for he has made out a good case, without question, in the aggregate, whatever may be thought of individual examples, and

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irrespective of the ultimate verdict concerning his work, which is another matter. Nauatl may not be and doubtless is not pure Aryan, but it does contain Aryan elements.

The astronomical symbols and methods of reckoning time that are undoubtedly Asiatic, though found in Mexico, cannot be ignored in this connection, and there is also another point that needs to be recognized; for it is something more than mere accident that the traditions of the Mayas contain the statement that white men came, having serpents embossed on their golden helmets. Such circumstantial details as this imply a historical foundation of some kind; for ideas of that sort do not originate primarily in the imagination. The account given also harmonizes perfectly with known facts in savage life. But the snake was originally one of the Aryan totems, as is shown by the sculptured cobras of India, the mural decorations of Pompeii, and the well-known classical allusions to that reptile. Vergil himself makes this point clear, and Vergil is too familiar to require more than a cursory mention. The strange white men, then, were Aryans, and they have left their architectural achievements behind them for the world to wonder at.

They became the dominant factor in the land of their adoption, as the monuments clearly show, and they must, therefore, have affected its language. Their descendants, being of a mixed race, would be likely to preserve the tongue of their fathers, though it would be modified more or less by the influence and pronunciation of their mothers; and a linguistic development would thus result that could hardly fail to be unique in various particulars. But this is the exact condition that appears to prevail in the Nauatl or Mexican language, as we know it; and the fact itself must be given due weight.

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Mr. Denison knew nothing of the tradition prevalent among the Mayas concerning the coming of white men; but he brought to his task a mature and a trained mind. He was born February 20, 1848, and died April 7, 1911, after a life filled with suffering, but also with incessant activity. A man of fifty is not likely to be easily deluded into the pursuit of a mere phantom, and Mr. Denison was a person of too keen an intellect to be readily deceived. He had the utmost faith in the ultimate Aryan character of Mexican, and, in a measure, this appears to have been amply justified. Such a character shines through Mexican very much as a Norman-French one shines through English; and, although some other powerful factor seems to have been at work in Mexican, as was the case in English, the Aryan features of the language are too strongly marked to be the result of either accident or coincidence.

If Mr. Denison did not fully recognize the possibility of an extensive speech admixture in the premises, it was not to his discredit. As a matter of fact, such a possibility rather adds to the remarkable character of his achievement; for it means that the difficulties of tracing sources were indefinitely increased by the obscuring processes inherent in speech amalgamation. Probabilities were against him. Scholars laughed at him. He was not a professional linguist. And yet he saw resemblances in Mexican words to Aryan forms so clearly that they constantly beckoned him onward, and he could not deny the call to give his life to the quest in spite of its seeming hopelessness. It took courage of a high order; but he had it, and he did not hesitate. Some day the world will estimate him at his true value; for worth must be the sole criterion by which such things are finally judged.

It was mentioned above that physicists now affirm that

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man came from a single pair. This implies that all articulate speech had the same ultimate origin. But if it had, there may still be some evidence of the fact in the primitive roots or in the fossil remains of the languages of the world. Men have begun to look for such evidence. It was long held that no connection could ever be shown between the Aryan and the Semitic groups; but Professor Moller's *Semitisch und Indogermanisch* claims to do just that, as does also Drake's *Discoveries in Hebrew, Gaelic, Gothic, Anglo-Saxon, Latin, Basque, and Other Caucasic Languages.* Both are radical, but they are also sane and convincing, and there are scholars who go far beyond this point, asserting that about fifty roots have already been traced in the languages of Europe and Asia.

It is accordingly conceivable that a few Indo-Germanic radicals might be found in Mexican without involving any real linguistic relationship, in the accepted sense; but no such mass of material as Mr. Denison has accumulated could possibly be accounted for on a basis of that character. The thing is simply beyond belief. Coincidence could not account for it, and accident could not. His conclusions must, therefore, have some basis of fact, and the only thing to do is to try to determine what it is. All the evidence must be considered, even that which is apparently of little importance; for the sum total may be sufficient to settle the matter beyond reasonable doubt.

A number of minor items that may mean nothing in themselves but in the aggregate may count heavily on the presumptive side of the argument ought, accordingly, to be mentioned in support and corroboration of Mr. Denison's general position. The first of these is the *swastica*, an emblem that is common among the relics found in Illinois, Ohio, Tennessee, Mississippi, and some other neighboring

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states. It is common in Thibet at the present time, and the Navajo and certain other American Indians weave it into their blankets in a manner similar to that in use in that Asiatic country. They also hammer it out of silver, as is likewise done by silversmiths in making the ornaments common in Mexico. It has even been found sculptured on the face of a cliff in Arizona.

This curious symbol of good luck does not appear to have been native among any of the Semites; but it is said to have spread over Europe from Greece, and Greece has therefore been claimed as the place of its origin. But it also seems that it spread over Asia from India, and a like claim has accordingly been made for that country. Neither is satisfactory or sound; for the combined facts plainly point to an Aryan origin earlier than either of the two claimed, and the presumption is that the sign entered both countries with their Aryan invaders. It probably entered America in a similar way with Aryan invaders; for the Aryans took it everywhere. It may have entered Mexico first; for it seems to be the thing that would serve as the most natural original source for certain curious ornamentations found on Mexican ruins, which would appear to have required a long period of development. The connecting link may be the sort of half-swastica with a lateral extension that is found on the walls of a cave in the Sierra Madre Mountains of Chihuahua.[1] Such a symbol would spread with great ease and rapidity among the neighboring Indians whose superstitious reverence for the sign would account for its presence among their relics. To them it might be an emblem of the white man's superiority, and in time they would be likely to make more of it than its original users did. This would explain present conditions.

[1] See *Records of the Past*, Vol. V, pp. 5 ff.; also Vol. VI, pp. 236 ff.; and see likewise *The National Geographical Magazine*, Vol. XXI, pp. 1002 ff.

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The one factor needed to make such an outcome likely is present; for a "blood-covenant" or "blood-brotherhood" could not fail to result from the possession of a similar totem, and this they had. The traditions of the Mayas call for a serpent clan, and the presence of such clans, widely distributed over extensive portions of the continent in the early days, is abundantly witnessed by the serpent mounds found in Ohio and elsewhere. That the clan was resident in Yucatan, while the so-called Maya culture was at its height, is evidenced by the bas-relief ornamentation found on the temples and other monuments of the people. The "plumed serpent" is everywhere conspicuous, and it is not a very wild guess to assume that its prototype was originally embossed on Aryan helmets brought on Aryan heads into what is now Mexico. No other design is so prominent in their carvings on stone, and no other design is more significant. *Quetzalcoatl*, "The Fair God," is compounded of *quetzalli*, "a noble plume," and *coatl*, "a serpent." When this is put with the Maya tradition concerning white invaders with serpents embossed on their helmets, the suggestiveness of the combination is positively startling.

But, again, many of the ruins found in the country of the Mayas contain a curious form of the arch, in which the opening is gradually narrowed by overlapping stones; and the same thing appears in Aryan structures of an early day, as is made clear by the "Lion Gate" of Mycaene, over which just such a support was originally placed. Men might develop this feature independently in their building operations; for men have invented the same instrument independently, and they have made the same discoveries independently. Men also borrow such ideas, and they carry them from one end of the world to the other in their

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migrations. They likewise invent things and perpetuate them, on the other hand, and this peculiar form of the arch may, therefore, mean more than it appears to do on the surface. Its presumptive influence must accordingly be allowed to rest on the side of an Aryan origin.

Evidences of sun worship and of moon worship are plentifully found, and these also were characteristic Aryan practices, especially in the Asiatic branch of the family, from which the Mexicans are supposed to have come. The pyramids used for the purpose were apparently not Aryan; but they were essentially Asiatic, and the idea may have been adopted there and then adapted to their uses, later on. The hideous rite of human sacrifice was Aryan though it was also Semitic, and this was one of the regular Mexican observances, the sacrificial stone being still preserved. It was dug up near the ruins of the principal Aztec temple in 1791. The remains of their temples and other ancient structures show a high degree of skill in handling cut stone, and the builders have been called Mongolians, Semites, and even Phoenicians.[1] They were most likely Aryans who came originally from the region of Persia.

This, at least, has been Mr. Denison's contention, and he has supported it by evidence outside his linguistic studies. In an article in *Records of the Past*, he maintains (X, 229 ff.) that the Aztecs were of Aryan origin and that they came to this country by boat. He also says that the migrations began about the time of Christ and ended with the Aztecs

[1] The ruins of Mexico and the other things referred to are mostly familiar objects, which can readily be found in easily accessible volumes. For the serpent mounds, see, for example, *Records of the Past*, Vol. V, pp. 119 ff. For the temple of the "plumed serpent," see *ibid.*, Vol. IX, pp. 298 ff. For the pyramids of the sun and moon and the calendar stone, see *The National Geographical Magazine*, Vol. XXI, pp. 1041 ff. For the sacrificial stone, see *ibid.*, Vol. XVIII, pp. 515 ff. See also Vol. XIX, pp. 669 ff. and Vol. XXII, pp. 487 f. and 498. For the "Lion Gate," see *Records of the Past*, Vol. I, p. 194. See also Vol. V, pp. 13 ff.

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about 1325 A.D., the Chichimecs coming first. The Toltecs he places at about 690 A.D. and says that they were about one hundred years on the way, while the Aztecs took but twenty-three, coming "by boats over the sea wide as heaven," as one of the writers puts it.

He had previously taught similar things and supported them by the native traditions. A considerable portion of his argument, in fact, in *Primitive Aryans of America* is devoted to this point. He says that the Mexicans were Indo-Iranians (p. 108), that their traditions deal with extensive migrations (pp. 125 ff.), and that boats are expressly mentioned in connection with the very first of them (p. 127). He further states definitely (p. 128) that they crossed the sea in two places, pausing on an island in the meantime. See also p. 132.

In these contentions he is supported, in the main, by Morgan, who says, in his *Ancient Society* (pp. 189 ff.), that the Mexican tribes came from a far country in the north; that seven tribes, one after another, settled in the land, the Aztecs being the last; that they came from Aztlan, and that the native traditions teach these things. The authorities are duly cited, one of them being Acosta, who was in Mexico in 1585.

A version of these traditions, with a French translation in parallel columns, was carefully used by Mr. Denison in his work, and his notes appear from time to time on the margins of the pages. The Annals of Chimalpahin are contained in the volume, and they cannot be lightly dismissed. Traditions always have some foundation in fact, and these particular traditions imply a long progressive migration from a far distant and greatly beloved country to the shores of Mexico, involving boats as well as long and tedious journeys. They moved forward to the east,

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precisely as the Aryans of India did, apparently, then northward along the shores of Asia, then to the east again by boat, after which they tarried for a time on some convenient island, but ultimately pushed ahead again by boat, continuing their migration until they finally settled down in what is now Mexico on the continent of America.

The habit of assuming that such a process was an impossibility in those early days is no longer one that commends itself. It has happened so often that a corresponding position has been shown to be utterly untenable, that it is not the part of wisdom to insist on any such conclusion in this case. The fact is that the ancients were men of great vigor, and they "did things," whether we moderns are disposed to give them credit for it or not. Writing, weaving, shipbuilding, and even the use of gloves are far older than men dreamed possible only a few years ago, and it is now known, as has been shown by Clay in his *Light on the Old Testament from Babel*, that the story of Amraphel, Chedorlaomer, Tidal, and Arioch, which Nöldeke and others once regarded as quite impossible, is actual history.

But that is not all; for an account of a conquest of the very same countries has now been found recorded in an inscription of a much earlier date. The critics thought such an undertaking was too great for 2000 B.C.; but Lugalzaggisi chronicles it as having been performed by himself about two thousand years before that date, and the inscription is now in the possession of the University of Pennsylvania.

But there are other points to be considered. The ancient Persians were fire-worshipers, as is well known, and the Mexicans should show traces of a similar cult. Do they do so? On this point Mr. Denison again scores. As was mentioned above, the Mexicans worshiped the sun

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and the moon quite after the regular fashion for devotees of that sort; but they also held that fire was sacred, and they maintained one day and night in their teocalli temples, in true Aryan style. Once in every fifty-two years these fires were all extinguished, after which a new sacred fire was kindled on the naked breast of a living victim, and runners then took it everywhere. See *Primitive Aryans of America*, pp. 153 f. In some details, ancient Persian practices correspond to these, and the resemblance in places is striking.

This, again, is merely presumptive evidence; but it adds just that much more to the general accumulation in favor of Mr. Denison's thesis, and it therefore increases the probability that he has made a great discovery. Inherent qualities count for more than other things in such matters, and the fact should be recognized.

The inscriptions furnish a genuine *crux;* for a race coming from ancient Iran would naturally be expected to show either some traces of the Zend alphabet or else some reminiscences of the Old Persian cuneiform letters in their writings. None have yet been traced; and, according to the *Encyclopaedia Britannica* (9th ed., I, 602), Mexican inscriptions, with those found in Yucatan, furnish two of the five general alphabets of the world, the Chinese, Cuneiform, and Egyptian being the other three. From the last of these, through the Phoenician, the various Indo-European alphabets are supposed to have sprung, although the matter is still in dispute. See article "Alphabet," *Enc. Brit.*, 11th ed.

If this latter assumption is true, the possibilities in Mexican are greatly extended; for, while the Sanskrit *devanāgarī* alphabet and the Hebrew one have some slight general resemblance and the former is supposed to have

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been based on an early type of the latter, neither has the slightest resemblance to Zend, which might possibly be mistaken by a novice for Arabic, although the two are not at all alike in reality, the Zend being the more complicated and elaborate of the two. The different alphabets, in fact, show about as much variation from the supposed original as the languages do which they portray; and Mexican, therefore, may possibly be less alien in its writing than it looks.

But if the alphabets found in Yucatan and other parts of Mexico are the result of a race mixture, the superior race adopting and adapting certain symbols used by the aborigines in their picture writing, then no resemblances either to the Old Persian cuneiform or to the more modern Zend can be hoped for, although one or both may have had some influence in determining the final result. At present, this is about all that can be said; for no clue to the meaning of the characters has been found, so far as is known. They militate against the supposition that the Mexicans were pure Aryans; but they do not exclude the possibility that the people were of a mixed Aryan stock.

In judging his work, one thing should always be kept in mind; namely, he was an amateur, not a professional. Had he been a professional, he would have been familiar with the unwritten law of philologians, which demands that every breathing, accent, and diacritical mark shall be in its place and be correct. As an amateur, he lacked this advantage; and the pain incidental to the handling of books, because of his crippled joints, led him to trust his memory to an excessive degree in citing examples from other languages. The result was an abundance of small typographical errors in his printed works, which were added to, in places, by misinterpretations of his handwriting by the

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compositor. Some of these escaped notice in the proofs along with the rest, and were discovered only when it was too late to correct them.

Mr. Denison's attention was finally called to this condition of his monographs, and he began to emend his text by citing the correct forms, on the margins of a printed copy, wherever they were needed. These emendations, together with a number of additions which he had also noted, have been collected and placed at the end of the volume. With them have been assembled such other emendations as could readily be made, and a fairly complete, though not exhaustive table is the result. See "Editor's Note," at the end of the list.

Here and there things will be found by which the reader's patience may be tried. This, however, is not a justifiable ground upon which to reject Mr. Denison's conclusions. It is rather a reason why he should be heard to the end. If he says in various places that he derives this or that Mexican word from a Sanskrit one, he also says, at the very start (*Phonol.*, p. 9, footnote): "I am not deriving Mexican words from Sanskrit directly, but merely employing that language as the nearest cognate." In order to be sure that his position should not be misinterpreted, he repeated the same general statement elsewhere (*Prim. Aryans of Amer.*, p. 24, footnote), saying: "But let it be understood once for all that I am not deriving Mexican words from Sanskrit directly." Having thus defined his terms, he felt that he had a right to use them. Such statements in footnotes, however, are apt to be either overlooked or forgotten, and the irritation caused by this peculiar use of words will then inevitably persist. It should not be allowed to warp the judgment.

To his credit be it said that he worked steadily three

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and one-half years before he ventured to be sure of his ground. Many derivations and hypotheses were adopted tentatively, only to be rejected later, and his experiments and conjectures ran into the thousands before he finally settled down to a definite method of procedure. Most of the preliminary work was then discarded; but the process still went on, and it appears in many places in the volume. Individual examples may still be more or less doubtful, as he fully realized and admitted; but beneath the surface, with its uncertainties and baffling details, there does seem to be a genuine substratum of fact in his contention that the Mexican tongue was Aryan. It is now the business of philologians to sift the evidence anew, to examine it in all its phases with an open mind, and to abide by the result.

The fact that Mr. Denison was not a philologian by profession should have no weight. A small boy once dissented from the great Agassiz, while he was lecturing to a class of young ladies on a steamer in Boston harbor. The boy was promptly silenced by the frowns of the class; but he was right, and later in the day proved his point with a— "Say, Mister, here's one o' them fish." In like manner, another boy's idea of a trotting horse, expressed in a drawing, was the butt of unending ridicule, until the camera silenced his critics by showing a similar likeness of an actual horse in motion.

The point is this. The question at issue is not any particular phase of Mr. Denison's labors, it is not his limitations or his shortcomings as viewed by professional men, and it is not their opinion of him or of his work. It is simply and unavoidably this: Is he right in his main contention? Does Mexican contain Aryan elements?

The genuine scholar is always ready to receive truth from any source and in any guise, so long as it is truth.

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The genuine scholar also has patience and is willing to sift a bushel of chaff, if need be, for only a handful of grain. The genuine scholar, moreover, is never a carping critic. He knows that the real seeker after truth is necessarily modest, and he knows that no man can permanently build himself up by seeking to pull another down. He may be compelled to dissent from him and to expose his fallacies; but he will be fair in doing so, and he will furnish substantial evidence to prove his contentions in detail.

Until this is done, Mr. Denison's work must stand. It is the imperfect labor of an amateur and a pioneer; but it shows courage and patience of a high order, and the chances are that he is right in his general position, whatever may be true of certain processes in his attempted etymologizing. There are always plenty of men to criticize anything new. Few have the patience to go below the surface in such a field, and a fault, once discovered, is usually considered sufficient provocation for precipitating a general condemnation of the whole thing—on superficial grounds. Of this, Mr. Denison has himself borne witness.

In places, my own patience was sorely tried; but simple fairness, to say nothing of courtesy, compelled me to go through all that he had written and to view it with an open mind. In details, we did not agree; but in final results it was plain that some such relationship as he had postulated must exist to account for the facts. Due allowance for errors and coincidences could not cover the entire ground, and the fact was accordingly promptly admitted, to his genuine satisfaction and lasting gratitude. He seems to have added a permanent and important item to the world's knowledge, and he deserves unusual credit for it in view of the obstacles he had to face.

H. W. Magoun

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NAUATL *OR* MEXICAN

IN

ARYAN PHONOLOGY

(NOT INCLUDING FORMATIVE SYLLABLES)

BY

T. S. DENISON

CHICAGO

T. S. DENISON, PUBLISHER

163 RANDOLPH ST.

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INTRODUCTION

On the plains of Anahuac there has been spoken for centuries and is still spoken an Asiatic language of an ancient type. The vocabulary of this language is practically Sanskrit; its root-formation follows the laws of Indo-Iranian phonetics. The people who speak this language call it *Nauatl* (Nahuatl), "the sweet-sounding," but since the most important tribe of the Nahua are called *Azteca* or *Mexica*, Mexicans, I have adopted the latter name as better known historically than Nauatl.

In the case of an important discovery it is seldom that all the facts are correctly interpreted and all the details precisely fitted at first. So there may be things in this phonology subject to the verdict "not proven," but I think they are few. Besides, few details in Comparative Philology can be proved absolutely as isolated facts. The proofs rest in the *aggregate*. I should have preferred to study the subject more exhaustively, but feel that I have done already all that the state of my health permitted.

For a century an unwritten law of Comparative Philology has been that America is forbidden ground. He who ventures thereon is "unsafe." Why? Because there can exist no connection between the Old World and the New. This has been a deterrent and a clog. With infinite labor I developed phonetic principles such as $r = i, u$, only to find them later elsewhere. But, had I known this at first, what would have been left to discover?

A more popular work of a comprehensive character is now ready for the press, and its publication will depend somewhat upon the reception which this analysis receives.

T. S. DENISON

163 RANDOLPH ST., CHICAGO
September 7, 1907

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MEXICAN IN ARYAN PHONOLOGY

I. Mexican Phonetics[1]

The Mexican language is written in the Spanish phonetics of the sixteenth century. The system is arbitrary, clumsy, and confusing. Thus *qua*, to eat, is also spelled *cua; uei*, large, is sometimes *huei;* Nauatl is also spelled Nahuatl; *chopini*, to peck (as a bird) *tzopini; ç* represents *s*, but a late writer has discarded *ç* for *z* uniformly, and *s* only is found in a MS of 1607. The sound represented by *x* is also at times represented by *ch*, and as this sound may be either of sibilant or guttural origin the result makes analysis difficult. It is nearly four hundred years since Molina reduced these sounds to writing, but the "Metodo" of Chimalpopoca indicates no phonetic change between 1520 and 1869 A. D.

The Mexican alphabet consists of sixteen letters: *a*, *c*, *e*, *h*, *i*, *l*, *m*, *n*, *o*, *p*, *q*, *ç* (*s*), *t*, *u*, *x*, *y*, *z* (*s*). *H* is only a breathing; *qu* represents a *k*-sound, but Pimentel uses a parasitic *v*, which would indicate a *kw*-sound and suggests an examination of the *qu*-sound, as in Latin. This examination I have been unable to make conclusively. In *cui*, *u*=*r* and should be pronounced. *Nasals* are rare. The nicer phases of phonetic change due to neighboring sounds I have not taken up.

II. The Cognate Languages

Mexican	Sanskrit	Greek	Latin	Germanic
170 words	148 cognates 85.7 per cent	90 cognates 52.8 per cent	88 cognates 51.5 per cent	83 cognates 44 per cent

[1] All references by *number* are to numbers under *Consonants*.

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III. Vowels

1. *Analysis of Mexican vowels as they occur in Sanskrit, 120 words:*

Sanskrit *a*, 58 times: becomes Mexican *a*, 38 times; *e*, 12 times; *i*, 6 times; *o*, 2 times.

Sanskrit *i*, 20 times: becomes Mexican *i*, 17 times; *e*, 2 times; *a*, 1 time.

Sanskrit *u*, 22 times: Mexican *o*, 11 times; *iu*, 7 times; *iui*, 2 times; *ao*, 1 time; *a* 1 time.

Remainder diphthongs or doubtful cognates.[1]

2. *Equivalence of vowels and diphthongs.—*

Mexican.	*a*	*e*	*i*	*o*	*u*	
Sanskrit.	*a*	*a*	*i, a*	*u, v*	*v,u*	
Greek....	α, ε, η	ε, α, η	ι	υ	ϝ	
Mexican.	*iu, yu, yo*	*ui*	*ua*	*iui (u)*	*ai*	*eo, eu*
Sanskrit.	*u, yu*	*vi, va*	*va,(r)a,(b)a*	*u, (vi), iv*	*ē*	*au, a(p)*
Greek....	υ, *jυ, ζυ	ϝοι, ϝι, υι, υ, ω	ϝα-α	υι, *jυι, ζυ	αι	ευ

Mexican *e* = Greek *η* in *metztli*—*μήνη*; Greek *a*, in *ten-tli*, *τάν-υ-μαι* (Hom.); Mexican *o* = Greek *ε*, in *conetl*, child, *γέν-ος*. For *b*, *p* = *u*, cf. Sansk., *abhi;* Zend, *aiwi.*

3. *Phonetic decay, shifting sounds, quantity.*—Many Mexican words have been so changed by phonetic decay that out of a total of about 200 words considered only 170 were employed in figuring percentages of cognates and, from these, 120 were selected for vowel comparison. These 120 words furnished only 62 Greek cognates, and the Greek depends upon that number. There is a confusion between *o* and *u* in Mexican; thus *teotl* or *teutl*,

[1] Whitney states that *a* = twice all other vowel elements in Sanskrit (*Gram.*, secs. 22, 75). Hence it might appear that my work is deficient in Sanskrit *a*. But apparently Whitney's estimate does *not* apply to *roots*. My own count of one hundred pages of a Sanskrit vocabulary indicates, in fact, that the total of *i*- and *u*-roots about equals the total of *a*-roots. To be precise, the ratio is: *a* is to *i* and *u* as 5.9 to 5.4.

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god; *tlaolli* or *tlaulli*, corn. Usually Mexican *o* = Sanskrit *u*, Greek *υ*. *Col*-li, ancestor; *kúl*-a; *itzo*-mia, sew, *κασ-σύ-ω*. Mexican *u* = Sanskrit *v*; Greek *ϝ*. *Uel*-iti, to be able, *vṛ*; **ϝέλ-αρ*, *εἶλ-αρ*. *Ui* = *ω*, *iluiz*, *ἔρως*. *Vi*, bird; *ui*-tzilin; *ὀιωνὸς*, **ο-ϝιω-ν-ος*.

I have ignored *quantity* entirely. There is no Mexican poetry extant, so far as I am aware, except the poems of Nezaualcoyotl, the poet-king of Tezcuco, and no adequate scientific examination of the meter of these poems has fallen under my notice. Hence I have no data for determining quantities in *roots*.

4. *Antiquity of Mexican as shown in vowel-system.*— As may be seen by the "Analysis of Vowels," Mexican appears to be more ancient than Sanskrit. It resolves the vowel *a* into: *a*, *e*, *i*, *o*. Again with reference to the palatalizing of a guttural, indicating *a* to be an original, I.-E., *e*, it does not go so far as Sanskrit. Thus, *conetl*, child; Greek, *γέν-ος*, Latin, gen-us; Sanskrit, *jana*. We should expect *xonetl* (*shonetl*), for *conetl*, just as we find *xonexca*, Greek, *γιγνώσκω*, Latin, *nosco*, **g^{e}nosco*; Sanskrit *jña* (see sec. 4).[3] In *tentli*, edge, *temi*, extend, the Mexican *e* is primitive, from *ten*, Latin, *tendo*, while Greek has *a* in *τάν-υ-μαι* (*τείν-ω*), and Sanskrit has *a* in *tanóti*; *han*, to kill, becomes *cuen* (*ken*) Mexican, as *cuen-chiua*, to wound.

The percentages in the devolution of Sanskrit *a* into Mexican *a*, *e*, *i*, *o*, are: *a*, 65.5 per cent.; *e*, 20.7 per cent.; *i*, 10.3 per cent.; *o*, 3.4 per cent. In the same comparison between Greco-Italic and Sanskrit, Curtius found the percentages to be: *a*, 40 per cent.; *e*, 38 per cent.; *o*, 20.5. Thus *a* stands: Sanskrit, 100 per cent.; Mexican, 65.5 per cent.; Greek, 40 per cent. *Hence* if primitive Aryan was an *a*-language the order of approximation to it was:

[3] *Sk* here appears to be the same as *sk* in Greek and Latin inceptives, as *mati*, to think; *machtia*, to teach; but cf. Whitney, *Sanskrit Grammar*, sec. 608.

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Sanskrit, Mexican, Greco-Italic; but if the Old Aryan vowel system was *a*, *e*, *o*, the order is: Greco-Italic, Mexican, Sanskrit. In either case Mexican occupies an *intermediate* position both as to *vowels* and *consonants*. This is not necessarily a clue to absolute age. We may compare Mexican of today phonetically, in important respects, with Zend as it existed *3,000 years ago*.[4]

NOTE.— *Vowel harmony*.— A cursory examination seems to indicate the existence in Mexican of vowel harmony, a feature of Ural-Altaic Languages. Thus *tepetl*, mountain; Greek, *τάφος*, *hill*; Turkish, *tepe*. But roots in compounds retain their proper vowels hence only prosthetic and thematic vowels would be affected. A few examples are: *acatl*, *acana*, *alaua*, *apana*, *azcatl*, *aztatl*, *çacatl*, *camatl*, *cana*, *chocolatl*, *cocho*, *coloa*, *colotl*, *colona*, *coyotl*, The vowels *a*, *e*, *o*, *u*, appear to be thus affected though this result may be only a legacy of the influence which made Sanskrit an *a*-language. Apparently *i* is not affected, and the same treatment of this vowel prevails in Turanian languages (*Encyclopaedia Britannica*, art. "Turkey"). This feature of Mexican, though *not prominent*, may possibly, in connection with the postpositive system, indicate Turanian contact.

Vowel harmony may be illustrated by Turkish *sev*, love. *Mek* (mak) is the infinitive sign; hence by agglutination, *sevderehmemek*, not to be able to cause to love.

5. *Remarks on diphthongs*.— While the Mexican language is apparently very rich in diphthongs it is really poor, since most of them involve *u* or arise from phonetic decay resulting in *u* (see Table D). The diphthongs *ei*, *oi*, do not exist and *ai*, *eu*, scarcely furnish enough examples to prove their identity: *eo*, *oa*, *ia*, occur, and *au* is usually Sanskrit *av*, or *a* + *a labial*. The table of *diphthongs* is not absolute. *Umlauts*, *spirants*, and *elision* at times appear arbitrary. *Ua* and *ui* deserve more particular notice since Sanskrit *v* is always a vowel, *u*, in Mexican.

Çvas, Sanskrit, snort; *ecuxoa*, sneeze, Mexican.

Vâstu, Sanskrit, house; *uastli*, house, Mexican.

[4] For a brief statement of primitive *a*-theory see Professor A. S. Wilkins, "Greek Language," *Encyclopaedia Britannica*, Vol. XI, p. 127. For the primitive-*a*, *e*, *o* theory see Professor E. Sievers, "Comparative Philology of Aryan Languages," *op. cit.*, Vol. XVIII, p. 788.

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Vi, bird + *svar*, hum, Sanskrit; *uitzilin*, humming-bird, Mexican.[5]

Viç, dwell, Sanskrit; *uic*, vicinity, Mexican; *vicus*, Latin; *wic*, A.-S.

Vagh, to carry, Sanskrit; *uica*, Mexican; Greek, *ὀχέω*.

Çvan, dog; *itzcuintli*, Mexican; Greek, *κον*, *κύων*.

Vṛ, "the chosen" + *varj*, "enclosed" = *ualyolcatl*, Mexican, kindred; *vṛ* = *ual*, but *varj* = *yol*, **jul*.

Vṛ in *uipilli* (*ue*-pilli), **uilpilli*, tunic = *ui*. Cf. *φελ-όνης*.

A-yot-l, Mexican, tortoise; Greek *ὕδρα*, **jύδ-ρα*.

Tocaitl, name, Sanskrit, *tu*, power + *ketu*, appearance, influence; Eng. "hood."

Teocihui, hungry, Latin, *daps*, a meal; Greek, *δάπτω*; cf. Sanskrit, *dāyá* + *su*; Greek, *δαΐς*.

IV. Consonants

1. *Meanings.*—Only *roots* are given and these are defined, in the tables, once under "Mexican." Philologists will understand that the meanings may vary materially in the cognate languages. I have supported derivations by Mexican cognates in all possible cases. For example, *tla*-pal-*tic*, strong: *bhṛ*, *φέρ-ω*, fero, bear; the Mexican cognates are: *ic*-pal-*li*, chair; *tzon-ic*-pal-*li*, pillow; *xo*-pal-*euac*, summer—fruit-bearing season; *i*-pal *nemoani*, god, literally, the stay of the living; *tex*-pal-*li*, the lips.

2. *Labials*, *b*, *p*, are frequently dropped or become *u*. *Tla-huana*, drunk; Sanskrit, *tṛ* + *pâna*, drinking, from *pā*; *grabh*, seize, *cui* (see *r*, *l*); *eleuia*, **e-leub-ia*, Sanskrit, *lubh*, desire, love; *xillantli*, belly, Sanskrit, *si* + *lamb*, to hang down; English, lap, lop-ear; *coatl*, serpent, *çubh*, to be beautiful, to glide; (*Quetzalcoatl*, "the Fair God,"

[5] It will of course be understood that I am not deriving Mexican words from Sanskrit directly, but merely employing that language as the nearest cognate.

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answers to both definitions); *auh*, also; Sanskrit, *api*, also; *panauia*, excel, *pan*+*āp*?, to "get in evidence."[6]

3. *Final guttural dropped.*—*Cepa-yauitl*, snow, **cega-yauitl*? Let us notice how cognate languages have treated that universal word *snow*. Mexican has gone farther than any other; it has simply *cep* (*sneg* not allowable), the guttural being lost or labialized;[7] German is close with *Schnee;* English with *snow;* Latin drops the initial sibilant, but retains the guttural in *nig-s* (*nix*); Lithuanian retains the full form *snẽgis;* Russian, *snieg̃;* Irish, *sneachd;* Welsh, *nyf;* Greek, *νιφάς*.

In consonance with this treatment of *ce*, Mexican *cia* or *cea*, say, speak, appears to be German, *sag-en*, to say. The final palatal is frequently dropped without resulting phonetic changes, as *itzcalpatic* or *itzcalpactic*, cold; *uapaua*, to get rigid, *uapactic*, rigid. *Initial* guttural is also dropped as *uentli*, from **ghu* (see Table D).

4. *Eastern and western palatal-gutturals.*—The *k*, *kh*, *g*, *gh*, sounds which remain *k-g* sounds in the west of Europe follow the East and become generally *s-j* sounds in Mexican. But sibilization does not appear to have gone so far as in Sanskrit.[8] Thus, Sanskrit, *çvan*, dog, is *itzcuintli* in Mexican; *çvas*, sneeze, *ecuxoa;* *conetl*, child from *jña*, to beget; *calli*, house, *çala;* Greek *καλιά*? (perhaps, orig. **skal*); *cantli*, cheek, Greek, *γενύς*; Latin, *gena;* Anglo-Saxon, *cin;* English, chin; Sanskrit, *hanū*(?) **janū;* *ualyolcatl*, kinship; vṛ + *varj* (*j* = *k*); *tlapic*, false, Sanskrit, *piç-una*, Greek, *πικ-ρός*; *cot-o-na*, cut, Sanskrit, *çat*. It appears at first sight that *ç*, *j* are *k*, *g*

[6] Compare, Hind., *nawab*, *nabob*, and Greek, *λᾶας* **λαϝας*, stone.

[7] I hesitate to call this true labialization because I can find no other instance in the language.

[8] Sanskrit verbs of the *j*-class also exhibit a lack of uniformity in final of root. Cf. Whitney, *Sanskrit Grammar*, sec. 219.

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before *a*, *e*, *o*, *u*.[9] But we have, *xaua*, to adorn, Latin, *color* (see Table D and sec. 8); *xaua-ni*, run (liquids), Sanskrit, *jala*, water (*gal*); *xalli*, sand; Latin, *cal-x*, pebbles; *xonexca*, to counsel; Sanskrit, *jña*, **j*^{e}*nask-o;* Greek, *γι-γνώ-σκ-ω*; Latin, *nosco*, **g*^{e}*nosco;* English, *know;* German, *ken-nen; xaua-ni*, drip; Latin, *col-um*.

Rule: *ç*, *j* are soft before *i*, *t*, and *in verb endings*.

But even the rule regarding *t* finds at least one exception in *tlapic*, false; *tlapictli*, one who is false. *Tel*-poch-*tli*, a youth, also has *tel*-poc-*atl* where the original is *g*.

5. *Chi* is oftenest of *dental* origin. Though *Chi-malli*, a shield, may be: *ji*+x, *dhṛ*+x, *çi*+x, *si*+x. But *chi-mal-titlan* means, "where prayer-sticks were set up" (*Hand Book of Indians*, Vol. I), from Sanskrit, *dhṛ*, devotion. The *Chichimeca*, it is said, were so called in reproach because the name meant "dogs" (*chichi*), but they readily accepted the term and evidently understood by it the *pious* or *brave* people. *Quau-chimal* is a monkey, and *Ozomatli*, "the divine monkey," was one of the "Stations" of the Aztecs in their wanderings. Cf. *çyâmá*.

6. *L and r.*—*L* is never initial in Mexican and I have discussed *r* and *l* as everywhere convertible, without going into the question which was the primitive.

a) *Medial r* causes no radical changes (Table F).

b) *Initial r* is: (1) dropped as in *ocotl*, light, Sanskrit, *ruc; yectli*, right, Sanskrit, *ṛj;* (2) it is introduced by a prosthetic vowel as *ilhuicatl*, heaven; Sanskrit, *rocaná*. The prosthetic vowel is usually *i* and *l* is followed in most such cases by *ui*, as *ilhuia*, to call. Cf. Sanskrit, *rinákti;* Zend, *irinákhti*, to leave.

[9] This analysis both of vowels and consonants seems to indicate that Mexican is nearer to the primitive Aryan than Sanskrit is. The vowel influence in these changes requires further study. Thus in *conetl*, the *o* may be eastern *a* or *I.-E.*, *e;* Greek, *ε*.

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c) With *palatal-guttural*, *r* becomes: (1) *i*, as, *kṛ* = *ki; ghṛ* = *ki; mṛg* = *mik;* (*dhṛ* = *chi*). Sanskrit, *grabh*, seize; Mexican, *cui;* Sanskrit, *hṛ*, becomes *ui;* (2) palatal dropped and *r* retained as *ilhuia*, speak; Sanskrit, *gṛ* (or *ru?*) (3) prosthetic vowel and elision of *guttural* and *r: Ihiotia*, to shine; Sanskrit, *hari, harit;* Greek, *χλώ-ρ-ος, χολή*; Goth. *gul-þ;* A. S., *geōlo;* Eng., *gol-d. Ihiotl*, breath; Latin, *hio;* Greek, *χάω*; Sanskrit, *ghrā?* Eng., *yawn? Ihia*, to hate; Greek, *ἔχ-θ-ος*; *ἐθ-ρὸς*? (see Table F).

d) *Double consonants* with *r* as one member are not allowable as: *sr, rs* (*sl, ls*), *kr, ks, pr, str.* One letter of the compound is dropped or a vowel separates them, as *citlallin*, star. But *tl* occurs constantly as a termination and in the prefix *tla* = tṛ, trans.

7. *Relation of r and i.*—The vowel *i* seems everywhere to be concerned in the changes caused by *r*, sometimes doubly so, as when the combination *i-l-u-i*, occurs. But in *eleuia*, desire, the prosthetic vowel is *e* and the following diphthong, *eu;* in *alaua*, glide, from **rāngh*, it is *a-l-a.* These latter may really be reduplications with the first *r* dropped.[10] *Eua*, rise, flee, is irregular. Cf. cognate developments of ṛ: *órior, ira, artus; ὄρ-νυμι, ὤρ-το, ἔρ-κομαι, ἐλ-θεῖν.* Sanskrit, *vṛ*, to turn, keep back, becomes *il* in *iloti*, revolve, turn, Greek, *εἴλω*, **ϝιλλω*, to turn, to tie; also *il-pia* to tie; *il-caua*, to leave, forget, turn from = *vṛ* + *caua* from *gam, gā*, go, come, be in a condition; or *car*, to wander.

8. *Words in naua* or *nahua.* There is a considerable number of words beginning *naua* with very divergent meanings. Some of these involve *r*, others do not.

a) Involving *r: Nauatl*, the language, *nal*, clear; *Nahua, Nuhua, Nohoa, Noa*, names of the people, all from

[10] *Alaua* may be from Latin, *lapso*, slide, glide. Cf. German *laufen.*

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Sanskrit, *nara*, *nala*, *man;* root *nṛ;* Greek, *ἀνήρ*; Latin, *Nero.*

Naua-laua, to ridicule, Sanskrit, *nar*-man, fun + *rā*, give (make); cf. German *Narr*, fool.

Naua, to dance, Sanskrit, *nṛt*, to dance; Hindustani, *nautch* (girl).

Nauatia, to command, *nara*, manly, bold; or *nam*, obeisance + *vad*, to order, the latter most probable.

b) Words not involving *r: Naualli*, **nacualli*, a sorcerer (astrologer); Sanskrit, *nákta*, night; Greek, *νύξ*; Latin, *nox* + *vara* (*vṛ*), time or turn of a planet.[11] But cf. *four* as a "sacred number" in magic.

Naual-cui, steal, *naualli* + *grabh* (sec. 6, (*c*) (1)).

Na-nauatl, a boil, bubo, redup. *nabh*, to burst. (Mr. Brinton and others apparently confound this word with *Nanauatzin*, the moon-god.)

Naui, four, *chica naui*, nine, Sanskrit, *náva.*

Nanauatzin, the moon-god, *Nana* + *vas*, to stop, dwell, Greek, **ϝάστυ*; A.-S., *wes*-an; Eng., *was.* His pyramid (*tzaqualli*), "stopping-place," lies 27 miles northeast of Mexico.[12]

Nauac, near; *A-nahuac*, "near the water;" Sanskrit, *nahus*, neighbor + *c*, locative particle, or adjective ending; *a*, prefix, from *atl*, water.

[11] Since 4 was a significant number *naualli* may be *naui* + *vṛ*. The Aztecs had constant recourse to astrology. Prescott, *Conquest of Mexico*, Vol. I, p. 104.

[12] *Nanauatzin* may also be analyzed: (1) *Nana* + *vā*, to blow, + *tzin*, honorific, "Nana, the reverend wind god;" (2) *Nana* + *vad* + *tzin*, to speak, foretell, "Nana, the forecaster;" (3) *Nana* + *vas*, to shine, "Nana who illumines." With (1) cf. Germanic *Wuotan*, *Wodin*, *Odin.* With all of them cf. Algonquian *Nane-paush-adt* or *Manabozho*, son of the grand-daughter of the moon and the West-wind. Also *Na*, *Nana*, *Ana* the Accado-Babylonian "god of heaven." The relation of *sin*, Assyrian, moon, to the Mexican *tzin* (if any) would require too much space to admit of adequate discussion here. Cf. *dagh-Ana, *δάφνη*, "she who burns."

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9. *Adjectives ending "uac" and homonyms.—Homonyms* are common in Mexican, usually resulting, as in other languages, from phonetic decay, as already seen in *naua*. A few adjectives end in *uac*, and it might appear that they all had a common affix. But such is not the case.

Tomauac, fat; Sanskrit, *tum-ra*, fat.[13]

Patlauac, broad, flat (tortillas); Latin, *pat-ul-us*, broad.

Chicauac, strong, *dhṛ* + *caua* (sec. 5).

Chipauac, clean, *dhí* + *pahua* (Table D).[14]

Melauac, direct, straight, *mā* + *ṛj* (*ṛjú?*)

Pitzauac, small, slender (rope); Sanskrit, *piṣ* + *rā*, **pitzlauac*, or thematic, *pitzra* + *uac;* cf. Latin, pinso.

Xopaleuac, **xocpaleuac*, green (summer); Latin, *sucus*, *sugo*; Eng. *suck* + *pal* + *eua* + *c;* succulent, "fruit-bearing time." Here the thematic adjective may be *xoc* + *pal*, a postpositive, 'with juice'; or *xoc* + *pal*, from *bhṛ*, to bear.

A striking case of homonyms is found in *quechtli*, neck; ma-*quech*-tli, wrist, from *krç*, slender; and *quech*-coatl, rattlesnake, from *khaj*, to shake; Eng., shake?.

10. *Disguised forms ui, iui, oui, uiui, uip, uian* are very puzzling and difficult to determine positively.

Uipilli, a tunic, shirt, *ui* + *pilli;* Sanskrit, *var-man*, a coat, from *vṛ*, to envelop.

Uiuixca, to tremble (with debility), redup., Sanskrit, *vij*, move suddenly, **viska;* A.-S., *wāc*, weak; O. H. G., *weih;* Eng., weak.

Uelitic, powerful, Sanskrit, *vṛ* + *vid*, get, take.

[13] These adjectives may be derived in three ways: (1) *Tu* is the root, *tuma*, a stem; *toma-c-tli*, noun, means fat, large; *toma* + *ua*, possessive sign + *c*, gives *tomauac;* (2) *tuma-ra* + *c* also gives *tomauac;* (3) by affixing Sanskrit, *vaṅçá*, **vac*, lineage, "kind," as *patla* + *uac*, "flat-kind," cf. English expression "kind o' flat." But see 11 (*c*).

[14] *Dhí* properly means pertaining to religion and *pahua* to make pure, or to cook.

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No-uian, around us; *no*, possessive pronoun, + Sanskrit, *vya*, around.

Iui, in the same way; Sanskrit, *iva*, as.

Iuiui (pronounce *yu-yŭ-i*), difficult; Sanskrit, *yuʔ*, to repel, keep off (Vedic).

Iuian, softly, perhaps, Sanskrit, *ram*, be quiet, but *yhuitl* is down, feathers, from *vi*, bird, and both may be the same.

Oui difficult, dangerous, Sanskrit, *bhī*, to fear, *bhīmá*, fearful; O. H. G., *bi-bē-t;* A.-S., *beofaŏ*. *O* in this and *ouitic* may be termed an "irrational vowel," 11 (*c*).

Ouitic, bad, sick, unfortunate; Sanskrit, *bhid*, to harm, beat; Latin, *fi(n)do;* German, *beissen;* Eng., *bite*, *bit;* Eng. slang, "*bitten*," is close to Mexican.

Uiptla, day after tomorrow; Sanskrit, *vip*, to waver (back and forth) + *tri*, *tres*, three.

Uiptlati, to remain three days or return in three days, the same.

11. *Verb-endings.*—While this brief treatise does not include *formative syllables*, there are certain verbs which require mention in order to determine precisely what element is mere ending and what may be the disguised fragment of a member of a compound word. The regular endings of verbs are: *a*, *ia*, *i*, *o* (*ua*) (*oa*). The puzzling combinations are, *ui*, *uia*, *iui*.

a) Influence of *a:* In the endings of Mexican verbs it seems to be a rule that *u* shall follow *a*, as *iztatl*, salt, *iztauia*, to salt; *auia*, to be pleasant; *panauia*, to excel. Sanskrit cognates throw much light on Mexican phonetics, as in *auia*, from Sanskrit *av*, to be pleased with; *mayaui*, to repulse, push away, from, *maitl*, hand + Sanskrit, *yam*, *ắya-ta*, extend.

b) Influence of *l* (*r*): As has been seen before (sec. 6, *b*) *ui* usually follows *l*, as *ilhuicatl*, heaven, Sanskrit

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rocaná, but there are exceptions, without apparent reason, as, *poliui*, destroy, from Sanskrit, *párā?;* Latin, *per-ire*. In *cuitlahuia*, to care for, we have a compound *cit* + *trā*, where *uia* follows *a*.

c) The root or stem. Mexican, like Sanskrit, is prone to indulge in a variety of forms for the same word or root. Consequently much uncertainty exists. *Panauia*, to excel, may be derived in three ways: (1) *pana*, thematic noun, evident, plain, with the termination *uia*, as above; (2) *pan*, as a root + *āp*, get (*auí-a*, sec. 2); (3) *pan* + *hṛ*, get, have, hold.

In *pachiui*, to spy, from Sanskrit, *paç*, the *sh*-sound of the root possibly fixes *iui* for *u* (see *xiuitl*, Table E). But a thematic noun in Sanskrit from this root might end in *u*, as *paçú*, cattle. Hence the form is really *pachu-a* (*pachoa*) and this last gives us *pachoa*, to bend, from *bhuj*. But this is arbitrary and is no more to be explained (at least further study is required) than are the arbitrary, inexplicable things in other languages. The reasons must be sought in Iranian or Sanskrit, rather than in Mexican. *Nal* means clear, but to become clear, is *naliui*. *Tepzutli*, is iron, *tepuzuia*, to chop. It is perhaps best to call all these endings non-significant variations for the present. Cf. Zend "irrational vowels" and triphthongs.

In *tla-piuia*, to grow, from Sanskrit *pī*, *pívan*, fat; Greek, *πίω-ν*, we have the Sanskrit theme, *piv* + *ia*. *Ceuía* means to repose, assist another, cool, put out fire. Here are irreconcilable meanings. *Ceua*, means to freeze. Sanskrit unravels this tangle.

The root *çi*, means to lie down, *repose;* the root, *çi* or *çya*, means to *freeze*. Here is an evident mingling of forms with a directness of meaning that leaves no doubt that *çi*, *çya*, *ceua*, *ceuia* are all cognates.

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V. Comparative Tables

Table A. Dentals

The sole dental in Mexican is *t;* Sanskrit, *dh*, *d*, initial, become palatalized to *chi*, thus *chicauac*, strong, from *dhṛ* + *caua* from *gam*, *gā*, be in a condition. In Iranian, *d* may become *z*.

An analogous change in the sibilization of the Latin *t* took place about the sixth century A. D.

Mexican	Sanskrit	Greek	Latin	Germanic
temi, *extend*	tan	*τάν-υμαι*	tendo	dehnen, Ger.
tequitl, *work*	takṣ	*τέκ-των*	tignum	———
tototl, *bird*, redup.	tud	———	tutudi	———
itoa, *speak*	īḍ	———	———	———
tona-tiuh, *the sun*[1]	x + div	*δί̯ϝ-ος*	divus	tiw, Germanic.
otli, *a road*	ud, out(?)	*ὦδος*	———	out?
itonia, *be hot*	svid	**σϝίδος*	sudor	sweat, Eng.
citlallin, *star*	stṛ	*ἄστρον*	stella, astrum	star, Eng.
choloa, *run*[2]	dhū, dhav? + ṛ	*θύω, θέω, δύω*	———	———
chiua, *do, make*	dhā	*θεῖναι*	fio	dōn, A.S.; thun, Ger.
chinamitl, *a fence*	dhṛ + na + mitl	*θρό-ν-ος*	fre-n-um	———
choca, *weep*	duhkhá	———	———	———

[1] Undetermined parts are represented by x. Here, *tona*, *itona*, **svitona* = sweat.

[2] See *chichi*, Table C and *dhí*, sec. 5. Cf. Sanskrit, *tur*, run, and Accadian, *du-ra*, the foot, to go, come.

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Table B. Labials

The labial series has but one representative, *p* (*u*, Table D), which is never final except in the preterite of verbs; *p* and *b*, initial, and final, are frequently dropped (see sec. 2).

MEXICAN	SANSKRIT	GREEK	LATIN	GERMANIC
pacha, *wooly*[1]	paçu	———	pecus	Vieh, Ger.
pachiui, (*a*) *eat*;[2] (*b*) *be full*	bhāj	φήγας	fagus	boc, beech, A. S.
pachiuia, *spy*[2]	paç * spaç	———	specio	spähen, Ger.
pachoa, *bend*[3]	bhuj	———	———	bugan, A. S.
paloa, *taste*	———	———	palatum	———
tla-*pal*-tic, *strong*	bhṛ	φέρω	fero	bear, Eng.
patli, *a potion*	pā, pā̆tra	πότος	poto	———
tepetl, *mountain*	———	τάφος	———	———
xi-pintli, *prepuce*	si + pinda	———	———	———
petla, *rush upon*	pat + ṛ	πέτομαι	peto	———
eleuia, *desire*	lubh	λίπ-τ-ομαι	lubet, libet	leōf, A. S. love, Eng. lieben, Ger.
auh, *also*	apí	———	———	———

[1] Pronounce *pác-ha*.
[2] See sec. 11, *c*.
[3] Mexican meanings warrant Germanic *bugan*, but not *fugo*, φύγω.

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Table C. Palatals

The palatal-guttural series is represented by *c* and *ch*. The latter may develop from a palatal as in *ten-challi*, chin = *ten* + *gal*? fall, move, "lip-mover;" or from a dental as *chichi*, dog, "sucker," from *dhī*, to suck.

MEXICAN	SANSKRIT	GREEK	LATIN	GERMANIC
cantli, *cheek*	hanu?	γένυς	gena	cin, A. S.
qualli, *good, fair*	kalya	καλός	———	hale, Eng.
cuix, interrog. particle	kis	πῶς, κῶς	quis	which, Eng.
quetzalli, *plume*	kesara	———	caessaries	———
queloa, *deceive*	kṛ, karú	———	———	———
quechtli, *neck, wrist*	kṛç	κολοκ-άνος?	crac-entes O. L.	———
cuen, *how*	kim, ka	κῶς, πῶς	quam	how, Eng.
chichi, *dog*, "*sucker*"[1]	dhī	———	———	———
chinoa, *burn, light up*	dī, dina	———	———	———
tecolli, *coals*	dah, *dagh	———	———	dags, Goth.
tec-pin, *flea*[2]	dakṣ + pinda	δεξιός + x	dexter + x	taihsva + x, Goth.
tataca, *scratch*, redup.	dih	θίγω?	fingo	daigs, Goth. dāg, dāh, A. S. dough, Eng.

[1] It is possible to derive *chichi* from *ksir-á*, milk, but the Mexican definition is distinctly "one that sucks" as in *Chichimecatl;* cf. Japanese *chichi*, father; *chichi*, breasts; *chi-n*, pug dog. (Whitney, *Sanskrit Grammar*, secs. 146, 150.)

[2] See *sk*, *ks*, Table E.

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Table D. The Pseudo-Labial U

The vowel *u* has vicarious uses in Mexican. It represents: (1) a *lost palatal-guttural*, as in *uapaua*, to get rigid; (2) a *labial* as in *tla-huana*, drunk, from *tṛ+pāna*, drinking; (3) *r* as in *xaua* (sec. 4). If true labialization of palatals ever took place in Mexican the change has continued from sonant to pure vowel.

MEXICAN	SANSKRIT	GREEK	LATIN	GERMANIC
çaliuhtli, *a joint*	x + yuj	*ζεύγ-νυμι*	jungo	yoke, Eng.
itzteua, *go*	stigh	*στείχω*	———	steig-en, Ger.
izcohua, to *warm*	———	———	coquo, *skoqo(?)	coc, A. S., *skoko?
pahua, *cook*[1]	pac	*πέσσω?*	———	———
tiuhtli, *sister*	duhitṛ	*θυγάτηρ*	———	Tochter, Ger.
alaua, *glide*	rañh, laghú	———	levis	rack? (gait), Eng.
eleuia, *desire*	lubh	*λίπτω*	lubet, libet	leōf, A. S.; love, Eng.
uentli, *offering*	hu, *ghu	*χυτός*	fu-t-is, fons	geōton, A. S.
uitztli, thorn	hṛs	———	horreo *horseo	Gerste, Ger.
ueue, *old*	———	*γέγει-ος*	———	———
ua-paua, *get rigid*	bah *bhagh	*πᾶχυς*	———	bōg, A.S.; bough, Eng.
yuh, *so as, thus*	uc? iva?	———	———	———
cea, cia, *seg, *say*	———	———	———	sag-en, Ger.; say, Eng.
nahua, *men*	nara	*ἀνήρ*	Nero	———

[1] Cooking and purification were almost synonymous terms. *Paca* means to wash; cf. Algonquian, *pawko-hiccora*, food made of hickory nuts; *Chip.*, *u-pwawa*, cook.

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Table E. Sibilants

The sibilants are *s*, *tz*, *s* soft, *x*=*ch*=*sh*. *S* is never final except in two or three words as *iluiz*, and in the future of verbs, but Aryan *s* protected in compounds often remains. *St*, *sk* often have a prosthetic vowel as *iztlactli*, a lie, from στράγξ; *izcalli* from *skalli. *S* is not found pure in the combinations *sn*, *sr*, *sk*, *sp*, *st*. *Str* is *sitr*, as citlallin. Such combinations are broken by a short vowel, as in New Persian. A prosthetic vowel often introduces *s*, as in *itzomia*, Sanskrit, *siu*; Eng., sew.

MEXICAN	SANSKRIT	GREEK	LATIN	GERMANIC
iztlactli, *saliva, a lie*	———	στράγξ	———	———
itzo-mia, *sew*	siu	κασ-σύ-ω	suere	sew, Eng.
ecuxoa, *sneeze*	çvas	———	———	hwaesan, A. S.
e, ei, yei, *three*, expa, *3 times*	tri	———	tres	drei, Ger.; three, Eng.
tl-a-*uiz*-calli, *dawn*	tṛ + vas + x	ἠὼς	aurora *ausōsa	eas-t, Goth. Eng.
metztli, *moon*	mās	μήνη	men-sis	moon, Eng.
xi-l-lantli, *belly*	si + lamb	x + λοβ-ός	———	si-new + lap.
xiuitl, *grass*[1]	jūṭa	———	———	jute (borrowed), Eng.
mazatl, *a deer*	mā̆ns	———	mensa?	———
	SK KS Combinations			
itzcuintli, *dog*	çvan	κύων	canis	hund, Ger.
cuitla-xolli, *bowels*	———	x + σκώρια	scoria	scur, A. S.
quechoa, *stir, shake*[1]	khaj	———	———	shake, Eng.
quechia, *rest on, lean*	upa + kṣi	———	———	———
izcalli, *the rising, (house)*	skand (çala?)	καλιά?	scala *scadla	———
oquichtli, *male*	ukṣ (*ug)	ὑγρός	uvens *ugvens	auhsa, Goth.; ox, Eng.
ichcatl, *ichcactl, *sheep*	chaga	———	———	skeāp, A.S.; schāf, Ger.

[1] See vowels, p. 6.

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Table F. R and L (see sec. 6)

MEXICAN	SANSKRIT	GREEK	LATIN	GERMANIC
r regular				
oloni, *run* (*flood*)	*uṛ, urmi	εἴλλω, *ϝιλλω?	volvo	welle, Ger.
poliui, *perish, harmed*	parā	———	per-ire	*ver*-gehen, Ger.
tolinia, *endure*	tul	———	tul-it	thole, Eng.
ma-lacatl, *a spindle*	x + rájju	μα-ράγ-να	restis, *resctis	x + *rac*-enta? A. S.
paloa, *taste*	———	———	palatum	———
patlauac, *broad*	———	πλατύς?	patŭlus	———
coloa, *bend*	———	κύρτος	curvo	coil? Eng.
ual-yolcatl, *kinship*	vṛ + varj	x + *ϝρέμβ-ος	x + vergo	wrinkle, warp, wrap, Eng.
r with prosthetic vowel				
ilhuicatl, *heaven*	rocaná	———	———	———
ilhuia, *call*	gṛ,[1] ru?	γηρ-ύω	garrio	call, Eng.
ilhuitica, *preoccupied*	rudh,	———	———	———
iluiz piltontli, *bastard*	———	ἔρως	———	———
alaua, *glide*	rañh	———	levis	rack, Eng.?
iloti, *revolve*	luth[2]	———	roto?	———
ilhuitl, *day, festival*	rtú, (ṛ)	ὥρ-α	artus	hour? Eng.

[1] See sec. 6 (*c*).

[2] See sec. 7.

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Table F—Continued. R and L

MEXICAN	SANSKRIT	GREEK	LATIN	GERMANIC
r dropped				
eua, *go, join, be seated*	ṛ (ar)	*ἔρκομαι, ἐλθεῖν*	ira	———
ocotl, *rocotl, *a light*	ruc	λευκός	lux	light, Eng.
qui-yauitl, *rain*[1]	ghṛ + x	———	———	———
cui, *take, seize*	grabh	———	———	———
acue-*cuex*-atl, *flood*,[2]	kṣar + x	———	———	———
cuech-eua, *rainy*	kṣar + ṛ	———	———	———
mi-qui, *die*[3]	mi + kṛ	———	———	———
ihiotl, *breath*[3]	ghrā ?	χάω	hio	———
ihio-tia, *shine*	hari, *ghel	χλω-ρός, χαλὴ	helvus, holus, olus	geōlo, A. S. yellow, gold, Eng.
yectli, *good, right*	ṛj, ṛjú (adj.)	ὀ-ρέγ-ω	recte	right, Eng. recht, Ger.
naua, *to dance*[4]	nṛt[4]	———	———	———
naua-laua, *to ridicule*	*nar*-man	———	———	narr? Ger.

[1] Yauitl=*abhrá*, rain cloud; cf. Hind., *ghee*, melted butter. Cf. Gray, *Indo-Iranian Phonology*, for *r=i, u*, pp. 34, 35.
[2] See sec. 6 (*d*), vowel *e* separates *k-s* and *r* dropped; *oquichtli* from *ukṣ*, is an analogous case.
[3] See remarks on *r, l*, sec. 6 (*c*). *Miqui* is rather, Old Persian, *mahrka*, death.
[4] Hind, *nautch*, (girl)

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Owing to its great length it would be impracticable to insert here the bibliography which was prepared in the course of my extended investigations. But a few works will be named here for the guidance of those who may wish to take up the study of Nauatl.

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The last two are unfit for beginners because of bad printing. Arenas is invaluable because of its idioms. The Grammar of Olmos contains "Address of a Father to His Son," which is very valuable as an example of primitive style. A bibliography of Nauatl literature is found in "Lenguas Indigenas de Mexico" by Francisco Pimentel, Vol. I, pp. 160–164; also a valuable sketch of the Nauatl language with much grammatical material.

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THE PRIMITIVE ARYANS OF AMERICA

ORIGIN OF THE AZTECS AND KINDRED TRIBES

SHOWING THEIR RELATIONSHIP TO THE INDO-IRANIANS AND THE PLACE OF THE NAUATL OR MEXICAN IN THE ARYAN GROUP OF LANGUAGES

BY

T. S. DENISON

CHICAGO

T. S. DENISON, PUBLISHER

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DEDICATION

Tetech nic-poa inin amoxtli in notechicniuh, Oliver P. Kinsey, mimatini temachtiani, *Uei Nemachtilocalco* (University), Valparaiso, Indiana, United States of America

In Tlatolicuiloani

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INTRODUCTION

The inertia of the human mind is a constant source of wonder to thinking people. Everyone can easily recognize a discovery after it has been made and thrust upon him by a *tour de force*, while very few even suspected it before. The question: Does a relationship exist between the languages of the New World and those of the Old World has been mooted for the past one hundred years. Professor Vater of Germany and Dr. Barton of Philadelphia made extensive researches in this direction with little or no success. Even Alexander von Humboldt himself, had his attention attracted to the Mexican word *teocalli*, a temple, and noticed its striking similarity to "theoû kaliá," Greek, "the house of God." But, apparently, Humboldt abandoned etymology and instead tried to identify Mexican chronological nomenclature with the zodiac and calendars of the various peoples of Asia, with indifferent results. Alonzo de Molina, who published his great Nąuatl-Spanish "Vocabulario" in the City of Mexico in 1555, must have understood Latin as well as he understood Spanish. But he passed by such words as Mexican *pant*-li and Latin *pont*-is, without noticing their similarity, at least his Dictionary is silent on the subject. But comparative philology was unknown in his day.

Three hundred and twenty years later Rémi Siméon wrote his magnificent Nauatl-French Dictionary, based on Molina. It is a monument of scholarship and would be a credit to any language. This and other like work occupied him twenty years more or less, and yet he contents himself with suggesting, and this at second hand, a com-

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parison between the Mexican verb *mati*, to think, and the Sanskrit *man* meaning the same. Other eminent philologists contented themselves with mere dicta on the subject of the relationship of the languages of the American Indians to the languages of the Old World, some of them to the effect that such relationship would never be shown. About 1766 there was published an essay by Maupertuis, a French scholar, to the effect that the serious study of barbarous tongues would result profitably in adding to the stock of human knowledge and in extending our conceptions of thought forms. Max Müller expressed himself to the same effect, but for some reason nobody seriously undertook the labor. Yes, one man, Don Vincente Lopez, of Montevideo, did go about it seriously and made some comparison of Quichua (Peruvian) with the Aryan languages. As I had never heard of his book until my own was well under way, and since I have been unable to find a copy of his work entitled "Les Races Aryènnes de la Pérou," I cannot speak of its character more than I have already said.

These preliminary remarks are not made with the purpose of magnifying my own work or of disparaging the work of my predecessors, but to illustrate the inertia of the human intellect, already alluded to, and the difficulty with which mankind is finally persuaded in a new direction although the way be perfectly obvious. That I engaged in this work I owe to the attack of a painful and lingering disease. Furthermore, I should acknowledge here that everything save health favored my work, acquired linguistic knowledge, leisure, inclination. Beyond all these, I began on precisely the right language, as I believe. Had I begun on Algonquin or Tupi my work in all probability would never have been finished. In fact it is not yet

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complete. Works on philology can be finished only by printing them.

I did not undertake this work with any preconceived theory. In fact for more than a year I had no other motive than the love of learning languages outside the Aryan group. I was not looking for "lost tribes" nor seeking to restore vanished continents. I belonged to no "school" of philology, ethnology, or archaeology. For me there were no dogmas or creeds, no historical or scientific hypotheses of any sort whatsoever, either to bolster up or to tear down. For these sins of omission I pay the penalty of being classed as an "amateur," but since this innocent word really means one who loves his work I am willing to accept it.

I shall undoubtedly be accused of rashness in suggesting daring derivations where greater scholars have been cautious. But this was not the place for hair-splitting discussion of cognates or vowel genesis. Where others have held back I have boldly entered, not from temerity and presumption but from necessity. He who would sail uncharted waters must take chances. Many tentative derivations and hypotheses were found to be wrong and cast aside. It was nearly three years and a half before I could positively derive *xiuitl*, grass, year. I have tried at all times to distinguish clearly between fact and theory. Doubtless I have retained some things as final which may eventually be found wrong. I am but a pioneer and others may improve my work. But I await intelligent criticism with calmness because my main proposition is unassailable, and it is this: *The Mexican language is Aryan in vocabulary and in verb conjugation.* Its *post-positive* system suggests Turanian (Accadian) kinship, but it is analogous to that of the Indo-Iranian dialects

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descended from Old Aryan. In antiquity Mexican appears to lie between Sanskrit and Greek as indicated by both *vowels* and *consonants*. Mexican mythology partakes of the Aryan, Turanian, and Semitic.

I believe that all the American languages may be traced directly to the Old World, though I do not say they are all Aryan. I will give here a single word as an example to illustrate more fully this general statement. *Viç*, Sanskrit, to go in, settle; *veçá*, a house; *vic*-arage, English, a parson's house; baili-*wick*, jurisdiction of a bailiff; *oîkos*, Greek, a house; *uic*, Mexican, *vic*-inity, near to; *huasi*, Quichua (Peru), a house (from vas); *og*, *oka*, Tupi, a house; Natick, neh-*wēk*-it, those in his household; *wicki*-wami, Algonquin, wigwam, an Indian's *house; vic*-inus, Latin, a subdivision of a town.

The chief difficulty with those who have attempted to compare the American languages and races with those of other portions of the earth appears to me to consist in the restriction of their field. For example, an examination of the zodiac, however interesting in itself, could not prove conclusive. Falb's "Das Land des Inca" is a remarkable monument to patient investigation and scholarship. His identification of the Peruvian god *Chon* with Vul-*can* I believe to be firmly established, as are other things in his book, but his "gottheit" is not sufficient. Mythology at best is largely a matter of speculation and at times it descends merely to clever guessing.

If the Indians came from the Old World at any time within the last 10,000 years, their languages should retain sufficient vestiges to indicate the fact. To go back to the Ice Age is doubtless going too far.[1] The traditions of

[1] Daniel G. Brinton (*American Race*) thinks that America may have been peopled from Europe by way of the north at a very early date. John Fiske (*Discovery of America*, Vol. I, p. 4) says: "But it is by no means probable that their [Indians]

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Noah's Deluge, the vague traditions of strangers cast away at sea and driven by adverse winds to the American shore, the traditions of strange, bearded men supposed to be priests bent on proselyting, the *occasional words* having a resemblance to European words of like meaning, all these things while significant are not conclusive. The languages must be taken as a *whole* and not in *parts*, nor in any vague discussions of similes, parallel traditions, and doubtful allusions to events of a semi-historical character. If two languages can be shown to be identical in a large proportion of their *roots*, say from 30 to 40 per cent., and identical in the basic features of their *syntax*, then in my opinion their common origin or contact is clearly established even if 5,000 years have elapsed since their separation and in spite of the fact that all resemblance in the one may be buried under bizarre *formative syllables* and ancient thought forms, while in the other, antique features have been stripped off by the attrition of modern life and the analytical character of modern thought.

This book has been a *development*. It has occupied nearly five years with unremitting labor. Groping my way at first, finding myself frequently wrong, and again

migration occurred within so short a period as 5,000 or 6,000 years." "Is most emphatically a native and not an imported article" (p. 20). "In all probability he came from the Old World at some ancient period, whether pre-glacial or post-glacial, when it was possible to come by land" (*ibid.*). Professor Fiske says further, commenting on Dr. Cyrus Thomas' "Aids to the Study of the Maya Codices," "it is becoming daily more evident that the old notion of an influence from Asia has not a leg to stand on" (*op. cit.*, Vol. I, p. 132, note) Also, "it [Mexican culture] was an outgrowth of peculiar American conditions operating on the aboriginal mind" (Vol. I, p. 147). I have quoted Fiske at some length because he fairly represents the attitude of most late writers on this subject. Also see A. H. Keane, *Encyclopaedia Brittanica*, "Yucatan," and "America owes nothing to the Old World after the Stone Ages," *Ethnology*, p. 345. On the contrary the Mound Builders are reckoned as no more than barely pre-Columbian. In my *Mexican in Aryan Phonology* I have shown Nauatl to be Iranian and in important respects identical with Zend as it was spoken in Western Asia 3,000 years ago. Truly Prescott spoke well when he said the word "probably" should be conjoined with most assertions of a historical nature.

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unduly elated over "finds" which proved later to have little or no value, I received no *aid* whatever. Though I sought advice from philologists, it was for various reasons declined. One learned "linguist," however, discussing some preliminary work, took some pains to show that I must be a very ignorant person. His extraordinary conclusion was that "not a single one" of my derivations would stand the test of scientific analysis, which was a little worse than I could say of his criticisms, since *some* of them happened to be just. Another philologist speaking in a semi-official capacity took a shorter cut, he flatly condemned *without reading my paper!*

Most of this work has been rewritten four times, but long experience in the making of books warns me that where so much is attempted some errors must inevitably be found in spite of innumerable revisions. For these I ask the indulgence of the public. In consequence of my book's having thus been as it were a growth, a few things remain which possibly may not be supported by the whole. I have indicated them in every case by means of notes or by a modifying phrase and left them as perhaps not uninteresting landmarks of my progress.

Some of my references are inexact for the following reasons. I began this work because a lingering illness incapacitated me from the active pursuit of business. My motive was solely to pass time in the agreeable work of studying another language. My study of Mexican interested me in other Indian languages, but it was some time before the idea of *comparison* occurred to me. Meantime I had been making notes rather carelessly, sometimes omitting volume and page. This is why I occasionally fail in exact reference or perhaps give no reference. But it is impossible for me to go back now and plod wearily through

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a vexatious verification for something which after all is not of the first importance. I believe the ordinary reader seldom bothers his head with notes, though here many good things are found in the notes. The philologist will have little difficulty in finding what he wants without much guidance from me.

In laying down my pen I confess to a certain sense of disappointment. The result hardly seems commensurate with the labor. For a time I hoped that I had discovered a very ancient language that might throw more light on the original speech of mankind, but finally it came to this, that I had simply added another tongue to the Aryan group. But if I have broadened the geography of Comparative Philology, I am satisfied.

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September 10, 1908

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CHAPTER I

Importance of Indian Languages—Various Learned Opinions—The Mexican Language, Place of Mexican in the Aryan Group—Kinship of Languages.

About the year 1766, Maupertuis, a French astronomer and mathematician, published a treatise on the origin of language. He emphasized the importance of studying the languages even of the most distant and barbarous tribes. In his opinion a critical examination of their "thought-forms" might give the world a new philosophy of language. His suggestions, however, did not meet the approval of M. Turgot, one of his contemporaries, who professed not to understand them.[1] Very important results might have followed a friendly acceptance of the suggestions of Maupertuis by philologists.

The white man has always considered the Indian as belonging to an inferior race, and has, in consequence, been somewhat indifferent to his language and his civilization. To a majority of the white race the Indian was once but little more than a wild beast to be robbed or killed at the pleasure of his more elevated and civilized brother. His language was popularly supposed to consist of a series of grunts and exclamations, pieced out with gesticulations, a barbarous jargon without nicety of structure, or the power of extended expression and continuity of thought.[2] It is not to the credit of the American people that they have allowed the Indians to perish from

[1] Henry R. Schoolcraft, *Indians of North America*, Vol. II.—[Maupertuis died 1759.]

[2] For a refutation of this nonsense, which has been held sound by some very respectable people, see Howse, *Cree Grammar*, Preface.

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the land without a more discriminating study of their languages, customs, and institutions. The Spaniards, in spite of their avarice and cruelty, have done better. But they came in contact with civilized Indians, and, to the shame of the Castilian, be it said, he ruthlessly destroyed the records and the monuments of two or three flourishing civilizations, little knowing or caring what he did. Of course there was a political method in his madness.

For a long time the study of the Indian and his speech languished, but of later years much has been done. Fortunately it is not yet too late to solve the problem of the origin of the Red Man as recorded in American languages.[1] Exactly twenty years ago William Dwight Whitney of Yale, an eminent philologist, wrote as follows: "It ought to be evident to everyone accustomed to deal with this class of subjects that all attempts to connect American languages as a body with languages of the Old World are, and must be, fruitless; in fact all discussions of the matter are at present unscientific, and are tolerably certain to continue so, through all time to come."[2]

Professor A. H. Keane says: "Science has demonstrated beyond all cavil that, while differing widely among themselves, the American languages not only betray no affinity to other tongues, but belong to an absolutely different order of speech."[3]

A German philologist recently expressed to me personally this same conviction as embodied in Professor Whitney's statement. Alexander von Humboldt was of

[1] The number of Indian languages has been variously estimated: Adelung, 1,264; Ludevig, 1,106; Squier, 400. The American Bureau of Ethnology estimates the number of *groups or families* at 100.

[2] *Encyclopaedia Britannica*, article "Philology."

[3] *Encyclopaedia Britannica*, article "Indians."

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like opinion regarding the affinities of the Indo-European group. Max Müller says: "To attempt at present to trace them [the American languages] to a Jewish, Chinese, Phoenician, or Celtic source is simply labor lost and outside the pale of real science."[1]

Professor Theodore Nöldeke of the University of Strassburg remarks: "It must be remembered that it is only in exceptionally favorable circumstances that cognate languages are so preserved during long periods as to render it possible for scientific analysis to prove their relationship with one another."[2] I think he puts the case too strongly, and the isolation of the American languages has furnished exactly the conditions described by the professor as exceptional, but philologists have ignored these conditions and confined themselves to dogmatic assertions not warranted by their knowledge of New World tongues,[3] and this while their profound studies of Old World tongues deserved the greatest praise and excited the admiration of scholars in all departments of learning.

Professor Nöldeke cites the numeral *six* as an example of a deceptive root which may lead the incompetent or rash philologist astray by its close resemblance in several languages which cross families, that is, belong to groups but little related according to accepted classifications. Thus: Hebrew, *shesh;* Sanskrit, *shash;* Modern Persian, *shash.* Professor Nöldeke says the Indo-European root is *sweks* or *ksweks*, while the Semitic root is *shidth*, which he asserts to be a wholly different root. By pure analysis and reasoning, it would perhaps be equally impossible to

[1] *Science of Language*, Vol. I, p. 452.

[2] *Encyclopaedia Britannica*, article "Semitic Languages."

[3] "In Tartary, 4,000 years really makes no changes in words," Joseph Edkins, *Congress Orientalists*, 1893, Vol. II, p. 670.

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establish his proposition or to disprove it. But in language, one living, virile expression or phrase upsets a chapter of theory, and the cases of absolute identity of form in such comparisons are so rare as to cut no figure, and would lead no real investigator astray. Professor Nöldeke might have added the Mexican *chica*, a possible **kiks* but not in fact, which is the increment sign between five and ten. Thus, *macuilli*, a "hand grasp," five, but six is *chica ce*, that is, simply "plus one," five being understood. *Chica* is the Sanskrit *adhika*, plus or redundant, thus *ashtādhikanavati* is literally 90 + 8. With *adhikanavati*, compare Mexican *chica nani*, nine. But finally, Professor Nöldeke's **ksweks* might, I think, be Semitic *shidth*, the sibilant descending from a guttural which is regular and common, and the dentals from palatal *k* which is not so likely.[1]

In spite of all these opinions from really learned men whom I greatly respect, I insist that analysis and comparison are better than theory. I may add here that stray waifs of a universal language may be found everywhere. If this happened but a few times it might be attributed to coincidence, but it continually happens. (See footnote, p. 88, on Khassi.)

The Mexican language.—The old distinctions, Indo-European, Semitic, Turanian, acquire a local significance when there is introduced to the world a language older than Sanskrit, and to all appearances, much like Zend of 3000 B. C. The Mexican language, better known to philologists as Nauatl (Nahuatl), is, in vocabulary pure Aryan.[2] It probably had its origin in the highlands of East Iran, the country of the Elamites, thus its primal

[1] *K* and *t* are interchangeable, *Grammar of Awabakal*, by L. E. Threlkeld.

[2] If there be such a thing as *pure* Aryan. Over 40 per cent. of Greek is unassignable (Rendall). The same may be said of Latin.

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seat was the Pamir country, "the Roof of the World." I shall not go into the origin of the Aryans here, but proceed directly to the specific matter in hand. Mexican is Aryan in its verb conjugation. Its pronominal system resembles Semitic with respect to the agglutination of pronouns, the conjugations are rudimentary Aryan, and the prepositive pronouns suggest Accadian (Turanian). While Mexican, in its vocabulary, is Aryan, some of its words appear to be found in Assyrian and some of its very oldest forms may be Accadian, while there are others in Púkhto which may be non-Aryan. It is of course possible that the Semites borrowed freely from the Accadians, who in turn may have borrowed from the conquering Semites. At any rate the two languages were both for a long time in use in Babylonia side by side, as is evident from the numerous bi-lingual inscriptions. Very much yet remains uncertain concerning Accadian, or, as it is latterly called, Sumerian.[1] In fact, so eminent an authority as Professor Friedrich Delitzsch denied the existence[2] of Accadian, and ventured the opinion that it will prove eventually to be neither more nor less than a hieratic gloss of the popular Assyrian. It is not my purpose to engage in the Sumerian controversy, but when words and roots are found current today on the plains of Anahuac which were in use on the banks of the Indus or the Euphrates 3,000 years ago, the question is pregnant and becomes one of patient research. Mexican occupies an intermediate position between Sanskrit and Old Persian, and in "thought-forms" establishes its claim to great age which is further supported by historical and mythological references.

[1] "The Accadians were the Highlanders of Western Asia beyond much doubt."—A. H. Sayce, *Assyrian Lectures*, p. 17.

[2] *Assyrian Grammar*, by F. Delitzsch, section 25.

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Place of Mexican in the Aryan group. — It will doubtless be said at once that language is no final test of race affinity. This is sometimes true, but I will add that language is almost the only thing which priests and politicians have never been able to affect seriously. The Mexican language is so primitive in vocabulary, structure, and "thought-forms," that if it has been produced by *contact* or the mingling of races, or by *conquest*, the fact was accomplished at a very remote period. Its *vowel system* closely resembles the *Avestan.* Hence if the Aztecs were not Aryan in race originally, their absorption by Aryans took place so long ago that for linguistic purposes we must call them Aryan. The postpositive system places *Nauatl* among the Pamir dialects, very primitive, and the modern Aryan languages of India, but the postpositive system is also Turanian.[1] I quote here, as à propos, a description of the *Ainu* of Japan. "The forehead is narrow and sharply sloped backward; the cheek bones are prominent; the nose is hooked, slightly flattened and broad, with wide strong nostrils; the skin is light reddish brown; eyes set straight in the head; hair for most part black and wavy; beard dark and handsome." The Ainu are said to be Aryans.[2] Cust describes the Galchas and the Dardui as pure Aryan stock and pre-Sanskritic. He thinks the Pamir region was the primitive seat of the Indo-Iranians.[3] Why not of all the Aryans (see "Geographical Names," chap. xvi)? But Forlong radically disputes the entire theory of Aryan influence in India, and maintains that Turanians

[1] For the formation of postpositives and agglutination, see Professor E W. Faye, *American Journal of Philology*, Nos. 60, 61.

[2] The *Nation*, "Notes," Sept. 12, 1907, and *note*, p. 88, *infra*.

[3] Robert N. Cust, *Modern Languages of India*, p. 32.

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have predominated in both language and civilization.[1] The question of *color* is also pertinent. Were there *red* Aryans? It is said on good authority, the Vedas, that the *Kshattriya*, warrior caste, were red, that they gave "the wisdom of India" to the white race, and that Buddha himself was a *red man*.[2] Their modern descendants are the Rajputs. The second Aztec "cycle" was the "Red Age." "The primitive Aryans were of light color, reddish or brown rather than black," says Mr. Widney.[3]

Kinship of languages.—It is my purpose to support these preliminary statements with about five hundred words, more or less, in a comparative vocabulary, which I deem ample to establish the linguistic unity of the New World with the Old.[4] I do not pretend that the entire Mexican vocabulary may be derived from Old World languages. Doubtless there are words indigenous to the soil of America, and *per contra*, Aryan roots have been lost or so worn that direct proof of their origin is impossible and only analogy establishes their identity. I have examined about thirty languages in pursuing these studies, but shall attempt in this work to show the identity of but one American language, Mexican or Nauatl, with the eastern languages, though I am convinced that what I have done for the Mexican may eventually be done for Shóshone, Quichua, Tupi-Guarani, Maya, Algonquin, Dakota, Selish, and other American tongues.

[1] J. G. R. Forlong, *Short Studies in the Science of Comparative Religions*, p. 248.

[2] Charles Johnson, of the Bengal service retired, in a *Letter to the Nation*, August 20, 1908, concerning his translation of the *Bhagavad Gîtâ*. Also *Encyclopaedia Britannica*, Vol. XII, p. 782.

[3] *Race Life of Aryan Peoples*, Vol. I, p. 27.

[4] Physical infirmities have prevented the revisions necessary before publishing such a vocabulary. But ample proofs are found in my monograph *Mexican in Aryan Phonology*.

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CHAPTER II

METHOD OF WORKING.—Ancient Forms -Cow, Sheep—Consonantal Equivalence and Vowel Genesis—Meanings

Any explanations of my method of research would be superfluous in the case of the trained philologist, but as this work is intended for general use among educated people, I may be excused for presenting here a few general directions for the guidance of the reader. First of all, let us remember that *vowel* mutation is very important, though the causes of change are not so easily traced as in consonant mutation which usually takes place under very definite principles of change.[1]

Cow.—The Sanskrit root *go* (gau) means *cow.* How small the change in 5,000 years. The Sanskrit *g* has advanced to *k* in English; the Greek is boûs (bo); the Latin bos or vacca. The Mexican for cow is quaquaue (pronounced ka-ká-way). Note here a curious thing. The Aztecs had no cows. The animal, if known to them, could have been known only as the bison (bos bubalus), but their name for cow is doubtless a reduplication of the Sanskrit *gau*,or *ga-ga*, with *e*, a possessive ending. Now, how did they manage to retain this name for several thousand years intact, supposing that for a long time they were strangers to the animal? This may be explained if we assume a borrowed Assyrian root, though it is doubtful

[1] In this connection read the phonetic mutations in chap. xi, "Phonology." Vowel mutation takes place under well-known definite rules in the Aryan languages. I ask the reader who is not a linguist to accept my statements as authoritative. I refer the philologist to my *Mexican in Aryan Phonology.* Max Müller says every vowel in the languages of Europe is exactly what it ought to be. If he means according to *rule* the statement is too strong.

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if such assumption be sound philology. The root *ka* once meant any projecting, prominent feature or object as a horn of a cow, a pole set in the ground, and even the human hand. The Accadians used it 5,000 years ago, and the Assyrians much later in the same sense. (See *ka* in Norris' *Assyrian Dictionary.*) Hence, if no Aztec had seen a cow for thousands of years, it would be in keeping with the genius of his language, to resort to the old name. But I do not maintain that this actually happened, since the stag was called *mazatl* instead of *quaquaue.* In the Ioway language the root is *cae;* to-*cae*, bull; *cae*-me, cow (buffalo).

Sheep.—I will cite here curious facts in the history of a word which is at once peculiarly instructive and historically interesting. Under the article "Mexico" in the *Encyclopaedia Britannica*, the author (E. B. Tylor), discussing the ancient Aztecs, eulogizes their piety as exhibited in a prayer which he quotes. The worshiper calls the attention of his god, Tezcatlipoca, to his having sacrificed a sheep to the deity. The author concludes that the prayer had been tinged by Spanish influences because no such animal as the sheep was known to the ancient Mexicans. *Ichcatl*, sheep, is chắga, goat, in Sanskrit; *skeap*, sheep, is Anglo-Saxon; *schaf*, German. The phonetic changes here are: *root* is *skag, Mexican *i-skag = ich-cac-tl.[1] The final *c* is dropped giving ichcatl. In Germanic final *c* becomes *p*, hence skeap. The prosthetic *i* is common in Zend and Iranian generally. Such vowels have been termed "irrational." The only puzzling question is, why did the transfer of meaning take place from sheep to goat. Perhaps it was the Aryans of Asia who made the transfer to goat. At any rate the Mexicans

[1] An asterisk preceding a word indicates a restored or hypothetical form.

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appear to have had a word for sheep always, and in the prayer alluded to, a wild sheep may have been meant, though it is not at all improbable that the prayer may have been altered by Spanish hands.[1]

Remember, too, that the termination *tl* cuts no figure in the solution. I may add that there is another derivation for *ichcatl*, which also means *cotton;* Mr. Tylor derives it from *ichtli*, thread, and sheep is "thread thing," which is phonetically impossible, as shown by the cognate *ic*-patl, thread, where the soft *ch* reverts to hard *c*, but *ich*-tli may be the same as Sanskrit *ish*-u, a string.[2]

Consonantal affinity and vowel genesis.—The equivalence of consonants is perhaps at once the plainest and safest guide in making comparisons. To stray from this fixed principle is to err. There are some very strange exceptions, however, and the most notable perhaps of all is that by which an original *g-k* becomes *t* in one language and *v*, *p*, or *f* in another. For example, Sanskrit, catúr, four; Greek, téttares; Welsh, pedwar. But vowel mutation is also exigent and must not be disregarded. But this subject is fully discussed in chap. xi, "Phonology."

Meanings.—Meaning is fully as important for purposes of derivation as the proper genesis of letters, possibly it is even more important sometimes. The only thing absolutely immortal is thought, and words are the

[1] *Encyclopaedia Brittanica*, article "Mexico." In fact the bones of Ovis Canadensis have been found in Arizona ruins; *Smithsonian Report*, 1900-1, p. 27.

[2] In this book I shall constantly refer to the Sanskrit. A reference to that language takes precedence over all others. But let it be understood once for all that I am not deriving Mexican words from the Sanskrit directly. The Sanskrit possibly possesses the most ancient literature to which we have access; at any rate, it is very near the Mexican, and for that reason, takes precedence. If the reader neglects this caution, he may at times misconstrue my meaning. The same caution applies to all other languages. For example, should I associate, *petla*, to peddle, with English peddle, I mean simply that both may come from a common pre-literary root, the connection to be proved by cognates or otherwise.

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long-enduring, almost indestructible symbols of thought. When one looks into a Sanskrit dictionary and finds that *lubh*, 4,000 years ago, meant *love*, as it does today, that *bhar* meant *bear*, and *gau* meant *cow*, it is a matter of surprise that mere words may be imperishable. It is in fact almost certain that when the meanings of two words identical in form differ radically that they are in no way related.

Even slang may teach us concerning language. The persistence of "thought-forms" is simply marvelous, and when words perish the same idea-mold will receive new words and the idiom appears to live forever. I remember having heard as a boy, among my native hills, the common expression "old rip," used. I looked upon it as simply slang. I cannot prove descent but I believe in it. The expression cast a mild sort of obloquy upon one not deemed bad enough to be designated as an out and out rogue. The Sanskrit root-word *rip* and its affiliated root *lip* mean cheat. Hence, to call a person a "rip" is really to call him a cheat and "give me none of your lip" is doubtless near akin to it, though appearing to have a very different origin.

There is a deviation of meaning, however, which is allowable arising from figures of speech, where simile, metonomy, synecdoche, cause, *transfer* meanings like sheep to goat, sister to daughter, or *extensions* like house to family and vice versa, but leave no doubt of the original signification, but even here, the careful philologist rejects all that appears doubtful.

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CHAPTER III

Roots.—Cow, Bite, Dog, Sweat, Elbow, Ox, Indra—Analysis.

Roots are the basis of philological research. Roots originally may have consisted of but two letters or even of but one. In Tupi, words frequently consist of a vowel, and *e*, for example, has nearly a score of meanings, which are differentiated by prefixes and affixes, and *i* is a root, to go, in Sanskrit. In Chinese many words appear to consist of but two letters, a consonant and a vowel; in fact some claim this to be a rule of Chinese. A compound consonant like *ch* or *ts* is counted as a single consonant. The most common form of Aryan roots appears to be: consonant + vowel + consonant, as *vat*, to know, reveal. But *vañc*, totter, while appearing to be exception, is really a tri-literal root strengthened by *n*. The *n* does not appear in Latin where we have *vac*-illare, totter, English *vac*-illate. Bear in mind this strengthening which occurs frequently in Sanskrit and Greek. This will explain the frequent disappearance of *n* in comparisons between Mexican and Sanskrit words. Thus *man*, to think, becomes *ma-ti* in Mexican, but retains the *n* in the English word *mind*. Tupi roots, like *e*, may simply have lost their consonants. Sometimes what appears to be a simple root is really a compound or extension as Sanskrit *yudh*, to fight which = *yu* + *dhē;* Mexican, yao-chiua.

Cow.—Very few words may be traced back wholly unmodified for any great period of time, but roots are of great antiquity. I have already mentioned the word *gau*, *cow*, as an example from the Sanskrit. But the Greeks

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employed *boû-s* (*bos*). Why was this? *Bou* may be derived from *gau* by means of an intermediate parasitic *v* (gva), but *bou* may also have been an original root. In *nyl-gau* we have the root in a compound, "blue-cow."

Bite.—The investigator does not always find his work so easy, as in the examples named, which are simple. Often but a small portion of a root can be traced in a word, or the whole is so transformed as to be unrecognizable. Sometimes only a single letter remains, and some obscure dialect proves the original. For example, German beissen, to bite, is in Mexican *ouit*-ic, bad, unfortunate, English, bitten; Sanskrit, *bhīd.*

This was my first derivation, but I find that Forlong derives a word from an old root which appears to be pre-Aryan, bōd, būd, bhūd, Tibetan bō and Chinese fō. He connects it with Sanskrit *bhūtá*, from bhū, to be, exist, hence a created being and specifically an *evil spirit*, our English *bogy*. The word was Turanian and is the Russian Bog, god, Iranian *Baga*. He does not explain the intrusion of the guttural *g*. In Mexican *b* becomes *u*, hence *ouitic* bad, *oui*, dangerous, are more probably derived from *bhū* than from *bhīd*. This root is wholly distinct from Buddha the name of the Sage.[1] (See p. 152.)

Dog.—The names cow, sheep, dog, are naturally among the oldest in any language and dog is especially ancient. In all probability, the dog was a companion of man at the very beginning of civilization. He was even a "sacred" animal. The oldest extant words for dog are formed round a *k*-stem. The Sanskrit name is *çvan* (ç = k or sk); the Greek, *κύων*; the Latin, canis; the German, hund; the English is specialized in *hound*. By reference to the

[1] Cf. *Mexican in Aryan Phonology*, p. 15, and Forlong, *Short Studies in the Science of Comparative Religions*, pp. 234 ff.

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chapter "Phonology, gutturals, eastern and western," it may be seen that Sanskrit *k* becomes *h* in Germanic tongues. This leaves the English word *dog* out of the discussion, which will be confined to the original word with a *k*-stem. The Mexicans have two words for dog, *chichi* and *itzcuintli* or *izcuintli*. The latter is the usual Aryan word, but in Panjâbi we find *kutta*. The compound consonant *tz* stands for an earlier *s* and the *i* is only a prosthetic glide very common in Zend, Old Persian, and Mexican;[1] *tli* is the termination which may always be ignored. Hence the original root may in prehistoric times have been *skun* instead of kun.[2] The Sanskrit ç has a unique value. Derived from an original *k*, this sound remains *k* in some tongues and becomes *s* or *sh* in others.

My object here is twofold: first, to bring my methods of working, in a few examples, so clearly before the reader that he may learn to distinguish disguised forms; second, to establish the fact that these words of extreme antiquity clearly show the Mexican to be in accord with other Indo-European tongues, or more explicitly an Aryan tongue.

Sweat.—On the authority of competent scholars, the statement is made that all the Aryan peoples have the common word *sweat*, which might indicate that the race originated in a warm climate. The Sanskrit root is svid, Greek, ἵδος *σϝίδος, Latin, sudor, and, curiously enough, these American Aryans of Mexico have the verb *itonia*, to sweat. If we concede the decay of an introductory *sv*, then they would be in accord with the Old World members of the family in **svid-onia*. This is analogous to ἵδος *σϝίδος, but the root is probably *ton*-a.

[1] See "irrational vowels," *Mexican in Aryan Phonology*, p. 11.

[2] Later I find that the Snake dialect of Shóshone actually has what may have been an sk-form in *skaray*, dog, and in Clallam, a Puget Sound dialect, dog is *ska*-ha. Compare *skye*-terrier. "Clallam differs materially from the other Puget Sound Selish tongues" (Gibbs).

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Elbow.—Two or more roots may be used as the base of a vocable, verb or noun. In Sanskrit and Mexican bare roots may be joined into compound words. The Mexican name for elbow is *molictli* or *molicpitl.* Molictli = mol + ic + tl. *Mol* is the Aryan root mṛ in Sanskrit, to crush; Latin, mol-a; Greek, μύλη, a mill; Anglo-Saxon, meal, and mol-de, crushed earth. This root also meant "mill" in the sense of a fight as it does today. The root iñkh (ik) means to move unsteadily (back and forth) in Sanskrit. Omitting *n* and *h* as explained, pp. 26, 97, we have Mexican *ic*, and molictli is "the mill mover," in allusion to the movements of the elbow in grinding on the ancient hand mill. *Pitl*, may be derived from pīd, to press upon, or possibly from piṣ which in itself means, to grind, crush, mill. Molictli may also be derived, perhaps more directly, from Avestan *meregh*, rub, wipe. Finally, as an "extended" root, molic-tli may be derived from mṛj, to rub, to milk. These ideas are all closely akin.

Ox.—The word *ox* originally meant *bull*, from Sanskrit ukṣ or vakṣ, "the sprinkler." A secondary form was uj or ug, to wet, from which we get the word *hygrometer*, an instrument to measure humidity; Latin, uvens, *ugvens coelum, the dripping sky; Gothic, *auhsa*, a bull, hence English, ox; German, ochse. The old Aryans also employed this word as embodying the idea of virility, power. The Mexican is *oquichtli*, male. It will be remarked that this latter word expands the root into two syllables, *oq-ich* (okish), instead of the Sanskrit ukṣ, and a similar strengthening of roots also occurs in Zend.[1] *Oquichtli* in Mexican is the sign of the male gender as: *oquich*-mazatl, a buck; *cihua*-mazatl, a doe.

[1] See Tolman, *Old Persian Inscriptions.*

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Indra, the name of a Vedic god, has never been satisfactorily derived. I offer the following solution. The Mexican particle *in* has practically the force of the article *the*. It is always independent or detachable in Mexican and had the same use in Old Persian.[1] Hence *Indra* may be analyzed: *in*+*dra*, "the dra." It remains to find the special meaning of *dra* which does not concern us here. The Mexican god *Tlaloc* is certainly Indra, since in Sanskrit *Indraloká* means Indra's place, that is, heaven. Tlaloc is plainly [in-]"tla-lok," god of the Terrestrial Paradise, the giver of rain, so was Indra, and patron of farmers. Tlaloc is no doubt a *transfer* meaning from *place* to *lord* of the place. Tlaloc was the only Mexican god who had *a court;* the instrument of his vengeance was the *thunderbolt*—all of which suggests Indra.[2]

Analysis.—It is sometimes not easy to determine the root in long compound words such as occur in most Indian languages. For example *notlazocniuhtze* means "my beloved and honored friend," of which *no* is the pronoun *my;* *tlazo* is clipped from *tlazotla*, love; *icniuhtli*, friend, becomes, by elision of *i* and clipping off the termination *tli*, simply the mutilated fragment *cniuh;* *tzin*, honorable, is reduced to *tz* which combines with *e*, the sign of the vocative case. *Temachtiani*, a teacher, is resolved into *te*, some one, *mati*, to think, which becomes *machti* in the dative form, and *ani*, a termination meaning "one who" (does).

[1] See the phrase "*in Susinak*," p. 66.

[2] The eight Tlalocs were beyond doubt the Vedic eight lokapālá, "world protectors."

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CHAPTER IV

Dictionaries — What Is a Root? — Differentiation — Different Values of Same Root: — "Kul," "Chichi," "Quetzalcoatl."

To accomplish anything positive and definitive, philology should, to use a mining-phrase, reach bed-rock. That is in many cases manifestly impossible. But philology must dare or else forever remain a stationary science. Far be it from me to say aught in criticism of the illustrious linguists who have gone before me and whose ripe scholarship in many cases far exceeds any acquirements of mine. I would not pluck a single leaf from their laurels. They laid the foundations for greater work, and it is for the future to utilize their labors, without which nothing could be done. It were invidious to select any particular names for mention from out this army of patient, persevering men who have prepared grammars and dictionaries of nearly all the known languages of the world, if not all of them in fact. The patient student who has at hand a magnificent library and behind him the prestige of a great university may, and often does erect a monument to scholarship. But he could accomplish nothing if he had not ready at hand the results of the pioneer's work, crude as it often is. It is safe to say that philology owes more to religion and the Christian missionaries, from the learned Jesuit father to the humblest preacher, than to all other causes put together, but one thing is to be greatly regretted. The natural bias of the minds of these men and the oneness of the trend of their thoughts, diverted them from anything like applied science in the study of

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languages. They set down faithfully what they heard and saw, but they seldom illuminated it by a spark of reflection.

Our dictionaries are good, and constantly growing better, but what the world needs now is a great comparative dictionary, which shall include every word (of common use) in not less than twenty-five of the principal representative languages. No pretentious dictionary of the future should content itself with repeating parrot-like merely the Romance, Germanic, Sanskritic, and classic equivalents. They are so similar in form, in many cases, that their repetition is not worth the space consumed. French or Italian would answer for all Romance, and German for all northern languages, resorting to other dialects only for words not found in these. Roots should be given for common words in all these representative languages. The space wasted in superfluous detail under the present system would accommodate the full derivations for say 3,000 common words, a sufficiency for all practical purposes; a number which in fact would cover the whole field. Such a dictionary would enable the comparative philologist to take up his work without the endless and onerous work of collecting materials.

What is a root? But firstly, accurate scholarship must determine the roots of the world's languages as carefully as it has been done for the Aryan tongues. This will involve an enormous amount of careful research and patient labor. In fact we may not hope ever to be sure of all or even a moiety of the roots in primitive human speech. Language was at first doubtless a formless sort of thing, which perhaps may be compared to the jelly fish in the animal kingdom. In these remarks I have in mind only definite, formed human speech however crude it may have

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been, language with a considerable vocabulary and "thought-forms" of definite mold, sufficient to differentiate its vocables and prescribe its syntax. Eminent philologists hold to the opinion that a few hundred monosyllabic roots would adequately include the primitive tongue, admitting for the sake of argument the unity of mankind.[1]

When is a vocable proved to be a root from the common or mother tongue? When you can show identity or adduce collateral evidence from several languages widely separated in time and geographical distribution, it is safe to say that you have found such a root. If such proofs are lacking, the supposed root may be local. It is true there is much borrowing done between languages. But the Arab, for instance, has not had any opportunity to borrow from the Eskimo, not for some thousands of years at least. An identical root (phonetic changes considered) with practically the same meaning in both these languages would constitute presumptive evidence of its common origin. Such a work as I have described could be prepared only under the patronage of some great institution with sufficient stability and resources to carry it through to a finish. The results would surely justify the expenditure of time and money.

It is also true that two primitive peoples may occasionally have independently hit on the same word for the same thing. "*Kaw-kaw*" might mean *crow* anywhere. Hence might spring a root, *caw*, to croak, to chatter, to mock, etc. This would be true of the small class of imitative or onomatopoetic words such as *cacalin*, a crow. The Mexican, chichi *uaualoa*, the dog barks, furnishes a fine example. Compare *ha-ha*, to laugh, perhaps once a guttural, *kha-*

[1] Max Müller, "Rede Lecture," *Chips from a German Workshop.*

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kha, with Sanskrit *jask*, to laugh, Mexican, *uetzca*, *ghatska, Latin, *cac-chi*-nare.

Max Müller roughly estimates the number of original roots at 500. But some philologists discard entirely the idea of primitive roots. Professor Keane says: "Roots must be relegated to the ante-Cosmos."[1] I cannot agree with him. Throughout the vast Aryan territory, from the Indus to Anahuac, we can, no matter under what guise or what dress of formative syllables, always trace a phonetic *unit* and that *unit* we call a *root*. Professor A. H. Sayce is of the opinion that the sentence is the *unit* in human speech. In a qualified sense, and applied to languages already developed, this may be true. It seems obvious that it could not have been true of the first crude beginnings of articulate speech, unless we consider exclamations, such as *hark*, to be complete sentences.

Differentiation of roots.—There must have been some confusion and overlapping of meanings in the primitive days when monosyllabic roots reinforced by signs and gestures constituted language. New meanings were needed and new vocables were necessary to piece out the limited capacity of existing roots. As we have seen, particles like *er*, *ly*, *ty*, were tacked on, while *n* became an infix, thus constituting words.[2] Finally, long, clumsy compounds were formed which embodied in themselves whole phrases or sentences like the Sanskrit: sakala-nitiçastratattvajña, all-behavior-books-essence-knowing. Such phrases constituted adjectives or adverbs. In Quichua they are as formidable as in Sanskrit. Modern

[1] A. H. Keane, *Ethnology*, p. 207 ff.

[2] Some philologists insist that in comparison both *root* and *termination* must rigidly agree. But this is straining a point. I think for practical purposes the terminations may be disregarded, as a rule. For example: κύων, Greek; can-is, *kʷanis, Latin; hun-d, German; itzcuin-tli, Mexican.

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syntax reconstructs such clumsy locutions into subordinate clauses.

The American languages are celebrated for long words consisting of anywhere from ten to twenty syllables. Nor are they an awkward jumble thrown together clumsily. They are dovetailed with nicety as a rule, though Mexican is at times a little cumbersome. They are built up from roots or words with precision and capable of a meaning at once extended but direct and pointed. But let us not be deceived by the amazing words constructed by missionaries and traders for the delectation and admiration of the unsophisticated. Wonderful things may be done in that way in German and modern Greek, and nothing could be much worse than some of our English words.[1] Indefátigably is a pregnant example, a cacophonous word with a broken back, and its primary accent four syllables from the end. It is simply barbarous. The following word is given as a sample of one of the very longest words in the Mexican vocabulary, *tzontequilicatlatquicaualtia*. Translated in the same order as the original it is "judgment-[give]-and-goods-restore-do." "Give" has been inserted; it is not necessary in the Mexican. The whole means to render judgment for return of goods in an action in trover. O-an-quintlaecoltia is a complete sentence, "you them have obeyed." But Mexican can be simple. Compare *etl* with English *bean*, and cal*poll*i, tribe, with cosmo*poli*tan, its cognate.

Different values of the same root.—Any inquiry into the exact form of the most primitive roots of articulate

[1] The following clipping exactly illustrates the case: "A young German matron once said: 'Ach, how glad I am that my dear Fritz has been appointed Hauptkassenverwaltungsassistent'—assistant cashier. 'Now,' she went on, 'in my title of Hauptkassenverwaltungsassistentin I boast five letters more than that proud Oberhofsteueramtsinspectorin'—excise inspector's wife—'can claim.'"—*Philadelphia Press.*

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speech would under the most competent hand be perhaps futile and mere speculation. For the sake of illustration assuming forms so elementary as *ka*, *ak*, *ba*, *ab*, *pil*, *apil*, *ko*, *kon*, *pa*, *pat*, *at*, *ap*, *mac*, *map*, there is under the law of permutations, room for almost numberless changes of form as these bits of speech are tossed on the restless sea of human thought. The wonder is, that anything has been definitely fixed. It is to be kept in mind that language is purely arbitrary. There are many anomalies which defy logic and elude analysis. The Sanskrit demonstrative *sas* might become *sa*, euphonically, *so;* Greek, ὁ, ἡ; Mexican *ce*, one? In the oblique cases the word assumed a *t-form*, as *tám*, *tát*, English *that*. The German *knabe*, boy, may once have been *k^{e}nabe;* clan, *k^{e}lan, from the Irish and Gaelic *clann*, appears to be at home in English as a terse, expressive root. I say it *appears* to be for the following reasons.

Kul.—The old Aryan invaders of India clung together closely, probably for three reasons, family pride, patriotism, and self-defense, since they were hated conquerors in the midst of a partially subdued alien race. In Sanskrit *kula* meant swarm, family, kin, tribe. The Mexican says "incal in no-*col*-huan," the house of my ancestors, literally, "my ancestors, their house." The Scotchman is very clannish, even yet. When an individual of the genus "sport" meets a chum he may greet him as "cully," and the other may in return greet his friend with the doubtful word "pal." Step by step these once honorable words have reached lower depths. The Scotch clan, *k^{e}lan, was almost certainly once *kulan*, identical with Sanskrit, *kula;* Sioux, *kola;* Mexican, *colli;* Panjabi, *kul*, family; Quichua, *kolla*. The Mexican is used only in compounds, but is the same root,

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no matter who may have originated the word. The vowel *u* (*o*) is an objection to this derivation but it is not insurmountable.

Chichi is a dog in Mexican, it is also defined as "one who sucks;" *chimalli* is a shield, quauh-*chimalli* is a monkey, *chimal*-ti-tlan is "the place where prayer sticks were set up." Here are apparently *three* radically different meanings attached to the root *chi*. Sanskrit, *dhī*, means to suckle; it also means piety, mind "set" on religion; *dhr*, *chi*, means brave, strong. Originally *dhi*, *dhā*, meant to *put*. Hence we get these derived meanings, but *chi* from dhṛ would be a *homonym*.[1]

Quetzal-coatl.—The Sanskrit, *çubh*, means (1) to be beautiful, (2) to have a gliding motion. It would seem at first sight impossible to reconcile these meanings, but Mexican usage renders it easier. *Coatl* in Mexican is serpent, and *Quetzal-coatl*, plumed serpent; "The Fair God," gliding through the air with his streaming plumes, fulfils both meanings.[2]

[1] See *Mexican in Aryan Phonology*, p. 11, sec. 5. Also *Quanh-chimalli*, below, p. 52.

[2] Coatl = **çub*-a-*tl*, serpent. Compare with *coa-tl*, the Babylonian *Hoa* or *Koa* whom George Rawlinson believed to be the serpent of Eden.

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CHAPTER V

MORPHOLOGY OF MEXICAN.—Compounds—Terminations—"Tzin"—Postpositions—L and R—Loss of Terminations.

Compounds.—Languages vary much in their methods of compounding words. English has gone to the utmost extreme of simplicity and merely runs two words together without any change whatever, as house-keeper, black-thorn, honey-comb; the same occurs in Sanskrit and Mexican, as Sanskrit, amitrasenā, army of enemies; Mexican, cuen-chiua, "wound-put," or slay. In such cases the subsidiary element is merely an adjective or perhaps an objective as in the last. In Mexican, one of the words is nearly always clipped. For example, *calli* is house; the possessive pronouns are: *no*, my; *mo*, thy; *i*, his or hers. Hence nocal, my house; mocal, thy house; ical, his house; teotl, god; teocalli, a temple; atl, water; acal, a boat; teachcauhtli, a leader; acalcoteachcauh, a ship captain, literally "ship-in-leader." *Ciuatl* is woman; *tlacatl*, man; *michin*, fish; *ciuatlacamichin*, mermaid. But Chimalpahin has Aciuatlmichintlaco as the name of a country, "mermaid-land," in which the terminations remain. It will be seen that the Mexican in compounding, sheds all terminations except those belonging to the last word. Sometimes even that is clipped, which is universally true with possessive pronouns as nocal, pronounced *nocalh*, with breathing after last syllable. In Tupi, the particles are pieced together in bits like a mosaic, *aba*, man; *zoŏ*, flesh; *u*, use, eat; hence *abaroŭ*, a cannibal. In Quichua, a formidable array of qualifiers, not abbreviated, fall into line with the precision of soldiers on

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parade, the principal verb at the conclusion exactly as in the long, mouth-filling, participial phrases of classic Sanskrit, such as the example already quoted.[1]

Terminations.—A brief consideration of terminations will help to an understanding of Mexican words just as it will greatly increase our knowledge of English or any other language. In English *r* = he who does, or is. The Latin *ter*, as in mā-ter, performs the same office. The Mexican *tl* is the same, as: cama*tl*, the mouth; Sanskrit, *cam*, to sip = camatl, the sipper. But care must be taken to distinguish roots ending in *t*, in which case the ending is *r*, as: at-l, water, tzint-li, end. Such words are clipped in compounding as if the termination were *tr*, *tl*, as: *a*-calli, boat; quauh-*tzin*-co, at the foot of the tree.

[1] Lewis H. Morgan has said (*Ancient Society*) that perhaps more books have been written about the Aztecs and more speculation indulged concerning them than has fallen to the lot of any other people. The Nauatl language has been slighted or mistreated by many writers who have had occasion to come in contact with it. Prescott disliked it and openly expressed his contempt for it, but he may be excused because of his defective eyesight which rendered its study formidable. But he ridiculed the derivations of Kingsborough when in fact Kingsborough was following a trail and Prescott was not. Even such careful writers as Fiske and Morgan misspell Mexican words and evidently at times do not fully comprehend them. The structure of Mexican is such as to lend itself readily to wrong interpretation. The polysyllabic words may at times assume different meanings according to different analyses. *Chichimecatl*, the name of a tribe, is a case in point. It has been defined by Molina, Siméon, and other authorities, as "one who sucks." This is an Indian definition and the Indian definition when it can be ascertained positively is obviously best, since a native always knows his own language better than a foreigner. A. F. Bandelier (*Peabody Museum Report*, 1876-79, p. 393) discusses *Chichimecatl*. He thinks it may mean simply "red men" from *chichiltic*, red, and *mecayotl*, kindred. But *mecatl* may mean a *tie*, a *cord*, a *whip*, a *mistress*. *Chichi*, unquestionably may mean *dog*. Hence *chichi-mecatl* may mean just as easily an Eskimo dog team as it could mean "red men," and one writer suggests it may mean a pack of hounds. The syncope of *l* weakens Bandelier's derivation. It should be *chichimmecatl* to satisfy his solution from a root *chil*. Another writer (*American Antiquarian*), commenting on Bandelier's derivation, suggests *chichic*, bitter + *metl*, "maguey drinkers" (pulque). But this is improbable, I think, since it omits final *ca*. My own view is that two homonyms obscure the meaning. In Sanskrit *dhī*, Mexican *chi*, means *to suck;* but *dhī* also means *devotion;* while *dhr*, *chi*, means *brave*. Hence the *Chichi-meca* "dogs" were no doubt simply the pious or the brave people. (See *quau-chimalli*, p. 52. For *ca* (ka), see Whitney, *Sanskrit Grammar*, secs. 1186*a*, 1222*c*.)

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The principal terminations of nouns in Mexican are *tl*, *tli*, *li*, *qui*, *ni*, *e*, *a*, *ua*, *uan*. Of these, *tl*, *tli*, *li*, *qui*, *ni*, all have the force of *r* = *tl*, as above, that is, they assert. The difference between *tl* and *tli* appears to be one of euphony, as cone*tl*, son; tlan*tli*, a tooth. *Li*, it must be remembered, is equivalent to *ri* or *r* of the other tongues, as icpal*li*, a seat might be *icparri. Such assimilation of a consonant is very common in Sanskrit and Latin, as scala, stairway, *scad-la, *scal-la. *Qui* no doubt = Sanskrit, *kṛ* (kar) make, one who makes; chiuqui, from chiua, do, is one who makes and tla-chiuh-tli is a thing done or made. *Catl* asserts nationality, trades, etc., as: Azte*catl*, an Aztec; puchte*catl*, a merchant. (See p. 46.)

Ni is predicative as, ni-tlatoa*ni*, or is equivalent to *tl* (*r*), ya*ni*, a traveler = ya, go + ni. *Ni* is perhaps a more emphatic asseverative in tlatoani one who rules, i. e., who speaks. *Ni* is much used. It is a frequent ending of adjectives and nouns, as: ni-qualani, I am angry; ti-qualani, thou art angry; qualani, he is angry. *Otl*, *utl* is the ending of abstract nouns, though not confined to that class.

E is a possessive ending: tlantli, tooth; tlan*e*, toothed. *E* appears to have the same function in Accadian.

Ua is the same; tlatquitl, riches, tlatqui*hua*, a rich man; plural, tlatquih*uaque*. *Ua*, *uan*, New Persian *van*, means neighbor, as: nota icauallocahuan, my father, his horse, and its companions = my father's horses. *A* or *tla* means "abounding in;" tetl, a stone; tetla, a stony place.

Ian, *an*, is equivalent to Latin *um*, Greek *on;* icala-qu*ian* tonatiuh, sunset, literally, his going in place.

Adjectives usually end in *ic*, *c*, *qui*, *ni*, *o*, *que*, *tli*, though there are many irregularities in Mexican and exceptional usages. Examples of regular forms: chipauac,

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clean; coztic, yellow; iztac, white; tetl, a stone; tetic, hard; teyo, stony.

Yo or *o* = *y* in English. Eztli, blood; *ezyo*, bloody; xochitl, flowers; *zochiyo*, flowery; citlallin, a star; *citlallo*, starry; iztatl, salt; *iztayo*, salty.

Ti appears to ascribe quality as in English; euatica, seated. *Ti* has the same genitive use in Chinese, Assyrian, and English.

But some adjectives end in *in* as before stated; imatini, prudent, from *mati*, to think. Adjectives also end in *ti*, as: *teyacati*, perfect. Words in *ati* (*ti*) may be adjectives, verbs, or nouns, as: t-iztlacati (ti-iz), thou art a liar. This is called the substantive verb. It is often almost impossible to distinguish this verb from such an adjective as *teyacati*, before quoted.[1] Adjectives also appear to end in *ca*, as: mimatca, subtle = mo + imat + ca, really adverbs.

Adverbs are formed from adjectives by suffixing *ca*, as: chipauac, clean, chipauaca, cleanly; or by suffixing *tica*, as ilhuitl, a feast; ilhuitica, festively; or with *catica*, as tlatquihua, rich; tlatquihuacatica, richly. Ca = Latin *que* enclitic.

Liztli.—Having neither infinitive nor participle the Mexican language lacks the flowing continuity of the other Aryan tongues. The nearest equivalent to the present active participle in other tongues is the verbal noun ending in *liztli*, as *chiua*, do, make, *chiualiztli*, "a doing" of something. The passive voice expresses the same idea more specifically as, *tlaxcalchiualo*, bread is being made. Mexican grammarians treat this verbal ending as *liztli*, but they were little given to analysis. I think the real

[1] Compare this termination *ati* with musallikati, a pipe cleaner, Arabic; also *tl* with fatatri, a pastry cook. The copulative verb *be* (sum) is regularly omitted in Mexican.

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formation was this: *chiua*, do; chiua + *ra* would mean "doing-becomes" or "doing-attains," which became simply *chiualo*, "is done or made." This is identical with the Latin passive voice. Perhaps this word once took the form *chiualis in accordance with the universal Aryan *s* termination. From this came chiualis + tr, a double termination not uncommon in Mexican, hence "chiualiztli," or, more correctly, "*iztli*." It is sometimes syncopated as: choquiztli, weeping, *not* choquiliztli.

Tzin.—Honorifics are of frequent occurrence in some oriental languages. The Japanese is full of such expressions as: "the honorable passengers will deign to claim their respected baggage." Servility in its varying gradations from slave to monarch, found expression in nicely graduated phrases to fit every possible occasion. The chief Mexican honorific, in fact the only one worth mentioning, is *tzin*. It means sir, honorable, dear friend, lord, etc. A father says by way of endearment, nopiltzin, my dear son. I do not know the original meaning of *tzin*. It is possibly the Assyrian *sin*. Naram-*Sin*, king of Assyria, was the son of Sargon I, and reigned about 3700 B. C. (later authorities say 3000 B. C.).[1] Cautemoc*tzin* was the last Mexican emperor, dethroned and put to death by Cortez 1524 A. D. Here is an interval of 5,224 years between these monarchs, the first recorded and the last to wear this ancient and honorable title or appellation. *Sin* or *zin* is not very closely defined in Norris' *Dictionary*, but reference is made in at least one case to its meaning a great and successful hunter, also soldiers and gods. It

[1] Canon Rawlinson in *The Five Great Monarchies* identifies the "Sin" monarchs with *sinu*, the moon (god), but I think his acceptation of the word is too narrow. Ta *zin*nai, "beasts of chase;" Norris' *Assyrian Dict.*, p. 357; *ts* changes to *sh* or *s*, (Norris); "ili-sunu *zin*uti, ishtari-sunu sapshati, unikh;" "gods-their *armed*, goddesses-their, attired, were reposing" (Norris, p. 359). Compare Sargon with Hungarian, *sarga*, yellow.

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evidently was applied to very noteworthy personages. As we have seen, *tzin* became generalized in Mexican, where it finally means little more than Mr. in English. In fact, its use is so generalized as often to seem absurd. It may be tacked on almost any part of speech. Its plural is *tzitzin*. (Compare Chinese *Tientzin*.)

Postpositions.—Co in Mexican means *with* or *in*, as: Mexica, the Mexicans; Mexi*co*, with the Mexicans, that is, in the city. The same "thought-form" prevailed in Greek. The Athenians did not ordinarily call their city Athens, if indeed they ever did. They said Ἀθήνησι, with the Athenians. *C* is probably identical with *co* as an abbreviation in such words as Chapultepec, cemanauac. This *k*-form is also Algonquin apparently.

Other postpositives meaning in, or at a place, are *tlan*, in Coati*tlan*, place of snakes, qual*can*, a good place; tlaqualiz*pan*, meal time; *c* in Chapultepec, "grasshopper hill." *Pal* means in company with, as *ipal nemoani*, a very ancient phrase meaning *deity*. *Pa* signifies like or with, as occe*pa*, another time; it is also Sanskrit, as push-*pa*, flourishing. *Icpac* is summit or top of anything, as quauh-icpac, in the tree-top. All these postpositives were probably once significant words in themselves. As may be seen, they answer to prepositions in the modern languages. They are numerous in Japanese and Chinese, and in the latter language, may precede the words qualified. This form of expression indicates the great antiquity of Mexican. But this is not a Mexican grammar and perhaps enough has been said already to make the subject clear. Vestiges of this form of expression linger in English: for instance, *ward* as found in homeward, skyward, equivalent to toward home, toward the sky; manlike, like a man; therein.

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This feature of syntax is also employed by the Turanian languages and the modern dialects of India. The Turanian tongues have a peculiar vowel sequence, traces of which are found in Mexican.[1]

L and R.—The Mexican alphabet lacks the letter *r*, but *l* is its equivalent. Substituting *r* for *l* in *atl*, we have *atr*, Slavonic *voda*, not much different from water, in fact the same word. *R* and *l* are peculiar letters in the linguistic scheme of the world;[2] besides being interchangeable, they allow vowels to play hide and seek around them in a puzzling way. In Sanskrit, there exists a *vocalic r* (ṛ) and *l* which play the part of vowels. The Sanskrit also has a regular *r* and *l* and the name for the letter *r* is *ra* instead of *ar*. Sanskrit tolerates such forms as *ádṛçam*, I saw. A vanishing vowel, usually an *a*-sound, must of necessity have preceded or followed *r*. Otherwise *ádṛçam* is unpronounceable. The usual Greek equivalent of vocalic *r* (ṛ) was *ra* as in dérkomai, I see; édrakon, I saw. The latter was possibly once édarakon. The unaccented vowel naturally perished. Every student of Greek may recall the fact that anomalies of this kind were usually explained as metathesis, whereas they were cases of vowel decay.

The word for *wolf*, vṛ́ka, in Sanskrit, illustrates admirably the vocalic character of *r* and *l*, and at the same time their interchangeableness. The word was originally, probably vṛk, vraçc, *vrask, the tearer. The Greek is lúkos, *v* disappearing and *r* becoming *l;* Latin, lupus; Church Slavonic, vlúku; English, wolf, *wolk. The English form is wholly unrecognizable were it not for the connecting links in other languages. Observe: that while Sanskrit and Greek retain *k;* Sanskrit, Church Slavonic,

[1] *Mexican in Aryan Phonology*, p. 8.

[2] Pezzi, *Aryan Phonology*, pp. 17 ff.

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and English retain initial *v;* Latin and English have passed from *k* to *p* (chapter "Phonology").[1]

I have gone into the study of *r* and *l* at some length, because *r* in particular is very important in determining derivations, also the value of terminations in many languages. The old Aryan *r* (ra) had a determining value, or, speaking grammatically it had a *nomen agentis* value. For example, in the word farmer, farm is the entity or inert object, while *r* adds the significance by affirming an agency and naming the agent. Hence a farmer is the active agent who utilizes a farm. In Spanish caballo is horse and caballero, originally horseman, is a gentleman. Here *r* converts the word horse into a longer word with the resultant meaning "one who rides a horse," the additional *o* being simply for euphony, ero=er. Thus the single letter *r* expands into the relative clause "he who does."

L and R as primitives.—In Mexican, an *l* may have been originally an *r* but perhaps it never was. In Sanskrit *r* prevails; in Zend and Old Persian *l* is missing. Any discussion of the reason why the Mexicans lost *r*, *b*, and *g*, would involve ingenious speculation, without definite results. The same phenomenon, paucity of consonants, occurs in other ancient languages. The truth may be that some modern forms of speech have simply developed more consonants, though Mexican has unquestionably lost them.[2] It is a question of abstract phonics and vocalization, in short, a history of human utterance. Persons who are not philologists may be disinclined to accept the mere dictum that *r* so often resolves itself into *l*. There are numerous instances and there is also evidence, apparently, that the lost *r* may unaccountably return to a language as in mod-

[1] Urku is dog in Assyrian, Norris' *Dictionary*, p. 505.

[2] "Ancient languages are very deficient in consonants," Onffroy de Thoron article, *Aryans of Peru*.

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ern Chinese.[1] I will cite another instance where it appears plain that *r* and *l* are synonymous. The Mexican word *tlalli* means earth, the ground; the old Latin word *tellus* meant the same; the modern Arabic *tel* means land, country. But the later Latin for earth is terra, Sanskrit, *trs*, to be thirsty (dry). *Tel* in Mexican has become merely initial *tl.* The full word may have been **t*ᵉ*lalli* instead of tlalli. In Greek *tel*ma is a swamp. Mexican possesses no ancient literature, no musty tomes or corroded archives in which to trace the evolution of *tel* or *tra*, *tla.* But with such convincing corroborative evidence in languages so widely separated in time and in geographical distribution, as Greek, Latin, Arabic, Mexican, is there any room for reasonable doubt that the Mexicans long ago said telalli or teralli instead of tlalli? Also note what has just been said about dérkomai.

Loss of terminations in plurals and compounds.— It is a curious fact that in Mexican compound words the termination of the first member of the compound almost invariably disappears: Thus *cihuatl*, woman, *no-cihuauh*, my wife; *maitl*, hand; *quechtli* (slender); maquechtli, the wrist; *puchtecatl*, a merchant, plural *puchteca*, merchants. There seems to be a disposition in this very primitive language to look at things in the mass or quantity rather than as individuals. Thus *Aztecatl*, an Aztec, but *Azteca*, the mass, is the plural or tribe. It seems to me that the Greek neuter noun which takes its verb in the singular involves a similar basic thought. The only explanation I think of concerning the last example and others like it is this: *pushteca* is a sentence meaning they guard or care for goods.[2] *Popocatepetl* is a similar case of a clumsy noun-sentence, literally "smokes-mountain."

[1] *Chinese Grammar*, by Professor James Summers, Oxford.
[2] Cf. *Push*man, an Armenian family name.

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CHAPTER VI

Mexican Word Studies.—Tlani, Quechtli, Tzontli, Xauani, Ualyolcatl, Pixquitl, Tlaca-tecolotl, Metztli, Tezcatl-ipoca, Youal-ehecatl, Quauh-chimalli, Ozomatli, Mexico.

Owing to phonetic decay the Mexican language presents some curious forms which may often be classed as homonyms. At first I was greatly puzzled by the radical differences in the meanings of the same word. Some of these forms I have been unable to derive successfully, but I mention them here to illustrate the difficulties which beset the pioneer in the analysis of American languages.

Tlani means command, wish, also down; *nite*-tlani means to *gain* at play; *nitla*-tlani, to *lose.* The first appears regular, that is, I have commanded some one or had my wish of him; the second is doubtless one of those idioms found in all languages which cannot be explained by taking the words literally. Nicte-chiuh-*tlani* in tequitl, "I have acquitted you of the tribute," is very hard to explain literally unless we understand: I have relieved you by putting your burden on some one else, "te" being the indefinite pronoun for "others." This *tlani* may be derived from Sanskrit trā, to protect. *Tlani, down,* may be tṛ, trans, through +*ni*, nether, down, as in English *ne*ther, millstone.

Quechtli is the neck, *maquechtli*, the wrist, but *quechcoatl* is a rattlesnake. I derive the first from Sanskrit, *k ṛ ç;* Old Latin, cracentes, classic Latin, gracilis, slender; the second I derive from Sanskrit, *khaj*, to shake.[1]

[1] See Max Müller, synonyms, homonyms, and polynyms, *Chips from German Workshop*, Vol. II, p. 70.

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Tzontli, 400, in enumeration; the head or a head of hair. At first I felt sure this was Sanskrit, çata, 100; Greek, hékaton; Latin, centum; English, hundred. Phonetically this derivation may be termed normal but not proven, hence only *meaning* may determine. If the word originally meant four hundred, or a large number, then tzontli is doubtless *cent*-um; but if the original meaning was top, head, then it may possibly be derived from *sán*-u, Sanskrit, top, ridge, a very different word; or it may be a root not found in other Aryan tongues.

Xauani, to drip, and *xaua*, to adorn, would appear to be related, were it not for the suspicious ending *ni*. *Xaua* seems to be found in the Latin, *col*-or. The fact that these very different forms exist with identical meanings in Latin and Mexican is the strongest kind of proof of the common Aryan origin of the two languages. When I had elaborated my system of phonology sufficiently I noticed this word *xaua* and argued that a Latin word from the same root should be spelled *col*. I turned to my Latin dictionary and found the cognate, *col*-or. But *xauani* is from Sanskrit, *sṛ*, *saraṇa*, to run (as liquids). Compare Latin, *col*-o, and Sanskrit, *jala;* German, *quellen;* and for *xaua*, Sanskrit, *çubh*, to adorn.[1]

Ualyolcatl seems a very strange and forbidding word to English eyes. It means kindred, consanguinity. It is derived from Sanskrit, *vṛ* to inclose, surround, hence those selected or set off from the rest of the tribe + *vṛj*, *varg, which means to turn, or to surround, inclose, thus giving a double meaning to the word, "those selected and inclosed" (in a common household), that is, *kin*, the family. Vṛjána from vṛj meant either dwelling-place or *dwellers*.

Pixquitl, harvest, is phonetically Aryan *pisc;* Latin,

[1] See *Mexican in Aryan Phonology*, p. 11.

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piscis, a fish; German, fische; Anglo-Saxon, pisc; Irish, iasg; English, fish. The Mexican word for fish is *michin*. How then is this transfer of meaning to be explained if pixquitl meant fish? If the Nahua once inhabited the northwest Pacific coast country, their chief occupation was necessarily fishing and to speak of the fish harvest was a natural sequence. But this is one of the cases referred to by Professor Nöldeke (see p. 17) where close resemblance of forms leads the negligent philologist astray. *Pixquitl* is Sanskrit *bija*, *biska, seed, and pixqui, priest, is no doubt *prach*, Latin, *prex*.

Tlacatecolotl, the devil, "the Rational Owl" (Clavijero), the man owl. This is a very puzzling word (for birds in mythology see p. 116). It may be analyzed *tlacatl*, man + *tecolotl*, owl. Since this is the Indian explanation it must not be ignored. But since Mexican has no literature, hence no records of word-history, it is not unreasonable to assume transfer meanings. *Tlaca*, an adverb, means, by day, visible, and is cognate with Sanskrit, *drç* to see; Greek, δέρκομαι; *tlachia*, to look, observe, is from the same root. *Darça* in Vedic Sanskrit meant the new moon. *Tecolotl*, owl, is no doubt Sanskrit, úlûka, owl *úlûkatl, and a "bad-luck" bird. The first syllable *tec* is, I think, from *tecolli*, a live coal; from Sanskrit, *dah*, to burn; Anglo-Saxon, dæg; English, day.[1] Hence *tlacatecolotl* may mean, "the firebird," "the shine owl," "the moon-shiner," alluding to the bright eyes of the bird or its plumage. This would be a very reasonable definition if *darça*, the moon, could be made to mean night which it really was. But the Mexicans distinctly meant *day* in their use of *tlaca*, thus: "*tlaca ti-ualla, amo youaltica*," you will arrive by day, not by night, hence tlaca may

[1] *Mexican in Aryan Phonology*, Table C.

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mean man since *tec* supplies the idea of luminosity.[1] In conclusion I may add that there exists today a belief in the "luminous owl."

Metztli furnishes a curious instance of a transfer of meanings. Metztli means: (1) a *month;* (2) the *moon;* (3) a *leg.* Metztli is identical in verbal form with the Sanskrit mâs, the moon, which in turn is derived from *mā*, to measure; Greek, *μήνη*; Latin, mensis; German, mond; English, month. The moon was the universal measurer of time in the ancient world and remains so with Mohammedans. Hence moon and month are etymologically identical. But the word *leg* suggests a difficulty and English history at once offers a solution. Our yard stick was established from the length of a royal arm, and on the authority of Brinton the Mexicans employed the lower extremity as a standard of measure.

Tezcatlipoca, a god, the devil, some say chief of the Mexican pantheon. Analyzed, tezcatl + ipoca. *Tezcatl* is defined a lake, a mirror but this appears to be a transfer meaning; *pocatl* is smoke, Greek, *πυκάζω*, shadow; image in the mirror as indicated by the possessive pronoun *i*. Hence Tezcatlipoca is demon, "his or its image in the mirror." Tezcatl is Sanskrit (Vedic), *táskara*, thief, hence evil-doer. This personage was also called *tezca-*

[1] A curious incident is related by the Rev. Frank Borton (*Independent*, December, 1906) as told him by a priest. A certain large cross was a favorite with the Indians. Examination revealed inside it a large stuffed owl.—My speculation has been curiously verified later. The "luminous owl" really exists. See T. Digby Pigott, *Contemporary Review*, July, 1908.

Brinton (*Myths of the New World*, p. 106) says *tlaca* was prefixed to tecolotl by the Christans and that no such deity as the "man owl" ever existed (reference Buschman). He defines *tecolotl* as "the stone scorpion," from *tetl* + *colotl*. Verily some extraordinary conclusions have been drawn from the analysis of Mexican words. As a corroboration of this cult of the devil in Mexico it may be sufficient to recall the rival factions of ancient Persia, followers of Ormazd and *Ahriman*. A sect in Persia today keeps up this devil worship (Carus, *History of the Devil*, p. 63).

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tecolotl, thus merging the two devils Tezcatl-ipoca and Tlaca-tecolotl into one. Tezcatl-ipoca the evil specter may be classed with the mirror and left-hand superstitions—being unlucky, ill-omened, malicious. It is a well-known fact that some tribes of Indians refuse to allow themselves to be photographed because the taking of any picture or representation of the person is "bad medicine." In this connection compare the Aryan traditions connected with the mirror, such as the universal belief that it is bad luck to break a looking-glass, and the Scotch divinations enacted by lovers before the glass. Uitzilopochtli himself (chap. xiv) was intimately connected with this Old Aryan, "left-hand" superstition. Tezcatlipoca was also called *Youal-ehecatl* or "Spirit of the Night."[1] He carried a mirror in which he saw all that went on in the world. The idea *thief* is plainly embodied in the mirror which, as the Indians believe, steals something from you.

Youal-ehecatl, spirit of the night, another name for Tezcatl-ipoca. Analogy and etymology combine to indicate that the Greek goddess *Hecate* or Artemis is indicated here. *Hecatos* the masculine form was an epithet of Apollo. The torch in her hand was supposed to symbolize the *moon*. She was distinctly a goddess of the night.

[1] The Aztec gods in general had different forms or aspects. Usually they were grotesque or terrible. I will describe one aspect of Tezcatlipoca: A young man of pleasing physiognomy, rather short and stout appearing, and slightly bent forward, this attitude probably assumed to comport with his half bird appearance. His vestment is an ample bird-mantle of blue or pale purple, the wings shading to black at the butts. His boxlike headgear is of the same color and surmounted by waving green plumes. His feet are double, above the human feet, springing from the ankle joints, are the feet of a cock. From his wristlets depend red ribbons, tipped with yellow. His posture indicates animation. Altogether this gorgeous personage done in purple, black, red, green and yellow barely escapes the grotesque. (Kingsborough's *Mexican Antiquities*, Vol. V, p. 189, plate 42; Codice Mexicano, MS 3738 Biblioteca Vaticana.)

For a description of the sacrifices to Tezcatlipoca see Prescott, *Conquest of Mexico*, Vol. I, pp. 79, 80; also Sagahun, *Historia de Nueva España*, Lib. II, caps. 2, 5, 24. For a curious account of his apparition and interview with an Aztec chief, see Chimalpahin, *Annals*, Seventh Relation, 1336, 1457.

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She presided over magic arts and spells to which the Nahua were greatly addicted. As goddess of the moon she is directly associated with the moon cult as represented in Hindu mythology and by the Algonquin Manabozho. *Dogs* were sacrificed to her and she was frequently represented as accompanied by dogs. (See Quauh-chimalli.)

Quauh-chimalli, monkey; *chimalli*, a shield. *Ozomatli* "the divine monkey" was one of the "Stations" of the Aztecs in their migration. What connection can possibly exist between a monkey and a shield? I shall try to unravel this mystery of mythology by offering what I believe to be at least a plausible solution. The days of the month in Nauatl, Maya and Kiché-Cacchikel were assigned "day gods." The eighth day in Maya was called *Chuen;* in Kiché-Cacchikel, *Batzi;* in Nauatl, *Ozomatli*.[1] Both the latter mean monkey, but *chuen* looks as if it meant dog, *κύων*, canis. Hence there *may* have been a transfer meaning in the other two languages from dog to monkey, since such transfers are not infrequent. In Nauatl (and Japanese) *chi* means dog and *chuen* may be the same. The dog in Mexican was sometimes called "the lightning beast," from *tzitzini*-liztli, lightning, an epithet doubtless derived from a homonym, Sanskrit, *dina*, to light up; Mexican, *chinoa*. This is a step toward mythology. The monkey is esteemed sacred in India today. Here is a striking coincidence, the words *dawn* and *lightning*. A third step is that Sanskrit, *dhí*, Mexican, *chi*, means devotion. *Malli* is a puzzle. Is *mal* a *root* or is it *formative?* In Vedic Sanskrit *çyama* meant dark or black; çyâmâm (ayas) was iron in the opinion of Dr. Schrader, though termed "black bronze." From this we see our way to *chimalli*, shield, black, "iron thing," dhā, to put. Turn

[1] In Nauatl, Ozomatli was the 11th day; cf. cimmerian, cyâmâm.

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again to mythology. Sarámā, the faithful dog of Indra, came at *dawn* driving up her *cows* with two other dogs(?), Cyâmá and Çabála, familiarly "blackie" and "spot."[1] The dog which accompanied the "Unknown God" on his visit to the Inca was *black* (Falb, *Land of the Inca*), and the dog Ceberus played an important part in Greek mythology as guardian of the portals of Hades. Here we have the connection between *chi* or *chin*, the dog "blackie" and *chima*-lli, shield (black iron), also the ideas "divine" and "dawn" or "lightning." But it remains to explain *quauh* in *quauh-chimal*, monkey. The Sanskrit name for *ape* was *kapí*, which phonetically becomes Mexican *kauh*. Hence if transfer meaning from *dog* to *monkey* took place the whole is clear without employing the specific name of Sarámā's dog "blackie," but simply understanding it as the black ape çymárá, *chimalli*, or "the Divine monkey."[2] I do not call this discussion of quauh-chimalli strictly scientific, nor is it, in fact, anything more than *plausible* as before stated. Chimalli may be derived, in its religious aspect, very directly and simply; *dhí*, devotion + *man*, to think, *man-ri, malli; hence "the pious, rational ape." But this will not explain chimalli a *shield*.

Ozomatli.—What was this "divine ape" who gave a day name to the Mexican calendar? As said before *kapí* Sanskrit for ape became *quauh* in Mexican as in quauh-chimalli, "monkey-sacred," not tree monkey. Hanuman was a king of the monkeys. Rama Chandra was an incarnation of Vishnu, a sort of Hindu Ulysses. In the Vedas we have *Vṛshá-kapí* the *virile* ape who fought

[1] The legend of *The Hound of the Baskervilles*, by Conan Doyle, was doubtless founded on this dog or Cerberus legend. This supernatural dog has become a spirit of evil in the Island of Britain. The Welsh call it *Cwn Wybir*.

[2] The philologist will ask here why *cya* develops *chi* rather than *chia* or *cha*. I can scarcely answer that question but *usage* renders either form probable.

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for Rama. Barth remarks that the modern monkey worship of India may go back to this warrior ape of the Vedas.[1] I would add that it unquestionably does. *Matli* is probably Sanskrit *mad* which may mean: joyous, divine, drunk.

Mexico.—The origin of the word Mexico has caused much speculation. Clavijero discusses it and connects it with the god Mexitli and no doubt correctly. His "house" was Mexicaltzinco. Lord Kingsborough tried to derive Mexico from the Hebrew meshiak, Messiah, "the anointed." In my earlier work I connected it with the Assyrian root *mekh*, which derivation I still believe to have a basis in fact.[2] Some think it may be *metl*, maguey + *citli*, hare, hence Mexitli would be "the hare of the maguey" and probably related to the Algonquin "Great Hare" Manabozho. Others connect it with *meyalli*, a fountain. This is evidently wrong phonetically. Others suggest *metl* + *ixtli* "face to face with the magueys." This seems absurd and wholly lacking in specific meaning since "face to face with the magueys" might mean almost any place in Mexico.

When the curse was put upon the Azteca, Uitzilopochtli changed their name to Mexica and spake to them: *Yacachto ti-tequitizque*, "for the first ye shall labor." Mexitli was another name for Uitzilopochtli.

The god Mexitli is, beyond any reasonable doubt, simply the Persian Ahura-*Mazda*, "the great god," the

[1] A. Barth, *Religions of India*, p. 265. The phonetics are: *vrsha*, virile, becomes *ozo* (uzo) in Mexican, *r* being dropped; in *kapi*, *p*=*u*, hence *quauh*=ka-ñi. The frontispiece of *The Story of Vedic India*, Ragozin, gives in colors a picture of the battle between Rama with his army of apes and the demon king of Lanka (Ceylon). The "divine monkey" is portrayed as performing astounding feats of valor and agility. Cf. Paul Carus, *History of the Devil*, p. 82.

[2] References to *Mekh*, Norris, *Assyrian Dict.*: mekhazu, stronghold (p. 768); mekhira, a superior (772); la makhri, unequaled (778); mekhran, a city (780).

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Supreme Being. Ahura, Sanskrit *asura*, god, is dropped and only *mazda* = mexitli remains. It is not uncommon in Iranian to extend a root to two syllables by interposing a vowel. Hence *mazd*-a becomes *mazid-a, Mexican, mex-it-li. The root is *mag* as in Latin mag-nus, large.[1] If we consider the Avestan, mazdian then we have Mexi-tli = magian, a priest of the fireworshipers.

Tenochtitlan, the more common name for the city of Mexico, is simply "place of the rock cactus" and no doubt was named from his own cognomen by its founder *Tenoch*.

[1] Cf. Gray, *Indo-Iranian Phonology*, also Tolman, *Old Persian Inscriptions*, for phonetic changes. Mazda often stands alone.

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CHAPTER VII

MEXICAN SYNTAX — The Prepositive-Objective Pronoun and "Thought Forms" — Sequence in Sentence — Syntax and Probable Age of Mexican — Coalescing Pronouns — Conjugation — "Desinences."

The prepositive object-pronoun in Mexican seems wholly superfluous. This scarcely comes under the head of compounds and yet it is in effect a species of compounding. In the sentence: Nic-poa in amoxtli, I read the book, *c* (*qui*) is the prepositive objective pronoun which usually indicates that the object will be named later on, but a pronoun must be used whether the object follows or not. The formula is: I-it-read, the book. The indefinite sentence: Peter reads (or reckons) would be: Petolo *tla*-poa. *Qui* is not used with "pacientes," that is, *personal* objective pronouns as Nimitz-tlaçotla, I love you, *not* Nic-mitz-tlaçotla. The indefinite pronoun *tla*, it, has a similar use but represents things indefinitely while *te* represents persons. This is a curious survival apparently confined to American languages.[1] We may well speculate concerning the origin of so curious a syntactical device. It appears useless now, but once the logical order of expression was different. The primitive man returning tired from the chase or driving his herds, at first sight of his dwelling, exclaimed tersely, "house." That was the important thing. If he made a statement it was "house, I see it," "house not far," etc. Many languages even yet place the object first. It was a long time

[1] Compare, *ni-te-tla-maca*, I give-him-it, with French, *je-le-lui-donne*, I-it-to-him-give.

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before the more analytical, detailed statement "I see our house" could come into use.[1] Perhaps the Mexicans began to place the object after the verb, occasionally, at first, and then generally, and the old instinct probably told them there should still be something before the verb to act as a sort of index. It is possible that *c* was at first an objective case sign, indicating the object in a tongue, without gender, number, or inflection, like the Japanese *ga*, the sign of the nominative case. The noun may have been switched over to follow the verb, while the sign got glued to the subject pronoun and remained there. Japanese and Chinese still use such signs; also Tupi, to a limited extent.

I think, in fact, Tupi may offer a curious corroboration of this view. There is a feature of the possessive-objective in that language which I confess I am unable to understand from the meager, hazy treatment given the subject by Ruiz de Montoya, though I have tried hard to grasp the gist of the matter. He speaks of "reciprocals" and "relatives." The rule is, that every noun beginning with *h*, *t*, *r*, has its relative *g* and its reciprocal *h*. Other nouns have *y* "relative," *o* "reciprocal." *Tera*, name; *cherera*, my name; *hera*, his (ejus) name; *guera*, his (suum) name. Example: *tub* begins with *t*. Peru *g*uba ohaihú oci abé. Peter his father loves, his mother also; *g* is a "relative" possessive-objective. Tupi is given to queer phonetic changes; *tu* or *tub*(*a*) is father; *cheruba* is possessive-nominative, my father (che + r + ub); *guba* is possessive-objective. May not *g*, here be an old objective sign coalesced and analogous to the Mexican? The

[1] The first arrangement has been called the "logical" and the second the "natural." These are arbitrary terms since both are logical and both natural. Byrne says that thoughtful races adopt the order subject-verb while careless races employ verb-subject. *Principles of the Structure of Language*, Vol. II, p. 281.

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formula would be $g^e + tub$. [In fact this seems to be wholly a question of phonetics.][1]

Sequence in sentence.—Modern Mexican places the adjective before the noun, and the object, as a rule, after the verb, thus following the "natural" order. But there are indications that once the "logical" may have at least partially prevailed. The usual order in an indefinite sentence is (1) inseparable, nominative pronoun, (2) prepositive, objective pronoun, (3) verb; as: *ni-tla-qua*, I-it-eat. But the object noun may be clipped of its termination and compounded before the verb as: *nacatl*, meat, *ni-naca-qua*, I-meat-eat; finally where nouns are employed for both subject and object the order may be (1) verb, (2) object, (3) subject; as: (*a*) "*Auh ic quin-macac in ipil-tzin in Chinancoca itoca Cacamatl Totec;* Chinancoca gave them his son by name Cacamatl Totec." Or the order may be, (1) verb, (2) subject, (3) object: as (*b*) "*yancuica achtopa oquittaque in Tlacochcalca-Chalca in opopocac in tepetl*, for the first time the Tlacochcalca-Chalca saw [that] smoked the mountain."[2] Mexican continually employs the predicate adjective in what must be considered as a sentence. Thus Sanskrit, vṛshá-kapí, virile ape; but the Mexican reverses this, a Latinism, and says ozo-

[1] In the Tukiok dialect of Polynesia, there is something resembling this: *mig ruma* or *ruma-ig*, equally mean, my house. A Melanesian form is etuia-k, my father. In Papuan, *ina-gu* is my mother. But these affixes are all in the first person. As to position, notice *post-* and *pre-*position in the first example quoted. Brinton gives *uba*, father, but Montoya's excellent dictionary gives: *tu.b*, father; cheruba, my father; tuba, ejus pater; guba, suum pater. With such phonetic changes it is very difficult to determine the real root. Brinton apparently held the view that "relatives" refers to relationship, consanguinity. But there are changes which are not capable of such explanation and are hard to explain in any way as tesa, eyes, cheresa, my eyes; supia, egg; sapucai, hen, but sapucai *rupid*, a hen's egg. Compare Sanskrit change of final *r* to *s* and *nigori* in Japanese, as kuni kuni to kuni guni. This change applies to prepositions also in Tupi as *tenonde*, before; *guenonde*, before *him*.

[2] References: Chimalpahin, *Annals*, Seventh Relation (*a*) year 1342; (*b*) 1347. The earliest historical account of an eruption of Popocatepetl.

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matli, the ape [which is] active. Compare the French *un homme grand*, a man [who is] distinguished, but *un grand homme* is simply a tall man.

Age.—Mexican syntax is also a strong proof of the extreme antiquity of the language. The Vedic Sanskrit allowed much more latitude in the position of modifiers than did the classic Sanskrit. The same feature prevails in the Mexican today. To illustrate: *o-mo-ual-cuep*, he returned, literally "he back turned." Here *o* is the augment which is separated from its verb *cuep* by the adverb *ual* and the pronoun *mo*. This arrangement in Greek would be an impossible barbarism. The augment is frequently omitted in Mexican, in perhaps half the cases, the same thing in the same proportion holds good in Vedic Sanskrit.[1]

Mexican has no *infinitive*, though Assyrian possessed an infinitive 5,000 years ago. It is not probable that Mexican once had an infinitive and lost it later. I know of no such case. The rudiments of an infinitive, perhaps the very germ as it were, arrested forever, may be found in the use of *tlani*. Here one verb was plainly made dependent on another in an infinitive relation, as, nicte-mac*tlani*, I have ordered it given another; nicte-chiuh*tlani*, I caused another to do it, ninomauiçol*lani*, I desire to be honored. Had this usage extended to all verbs instead of being confined to this parasitic *tlani*, a genuine infinitive would have resulted. *Poloa* is used similarly.

The Mexican is extremely simple in its syntax, nevertheless. The adjective as an attributive precedes the noun as in English. *Iztacciuatl*, the name of the great volcano, should really be spelled as two words: *iztac*, white, *ciuatl*, a woman, so called because the snow on its summit lies in

[1] Whitney, *Sanskrit Grammar*, sec. 587, *a*, *b*, *c*, *d*.

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a long line resembling the body of a dead woman in her shroud; in Spanish Mujer Blanca. The possessive adjunct usually precedes its head word, though no ambiguity results if it follows thus: Nota i-cauallo, my father's horse, literally, "my father, his horse," or i-cauallocahuan in nota, my father's horses. This is New Persian as, daman *i-koh*, hillside. For the important and peculiar use of the possessive pronoun, as used in nota (no tatli), I would refer the reader to a Mexican grammar.

Connectives are few in Mexican. There is no true relative pronoun. This lack of connectives gives the language scantiness of thought or at least the appearance of it, as: Nic-nequi nic-quaz, literally, I wish I shall eat, for I shall eat. There is an ambiguity in the use of the imperative in the singular. Thus: ma nitla-qua may mean (1) May I eat (precative); (2) I do not eat; (3) I am going to eat. The voice distinguishes them.[1]

Coalescing pronouns.—In Assyrian the possessive pronoun follows its headword instead of preceding it. Thus, "their corpses" would be written *pagri-sunu*, corpses-their, while the Mexican would say: *sunupag*, clipping the termination from the last word, assuming that he used the same words. But position may count for little. Considering the lapse of time, perhaps the Assyrian once said *sunupagri*. It must be borne in mind that Assyrian was spoken without radical change through a period of nearly 5,000 years. Such language-vitality makes English and other modern languages, except Greek, Lithuanian, Finnish, etc., seem like mere mushrooms of speech. We are 2,500 years later than Nebuchadnezzar, but the latter himself, was 3,200 years later than Sargon I. Both spoke Assyrian. Lithuanian retains a curious sort of

[1] Olmos, *Grammar of Nahuatl*, p. 82.

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liaison which practically links two words into one, as the recent investigations of R. Gauthiot in Lithuania conclusively show and decide a mooted point.[1] The Hindus wrote an entire sentence as one word, and liaison in pronunciation probably took place as in modern Lithuanian in certain cases, though modern grammarians are inclined, I think erroneously, to consider this feature of classic Sanskrit as largely artificial.[2] (See the Sanskrit phrase quoted, p. 34.) In language we must accept things as they are, however illogical and arbitrary they may appear. Apparent contradictions may exist side by side in dialects of the same language. Thus in colloquial Arabic, the pronoun, possessive or demonstrative, precedes its noun in Syria, as: *thal-beit*, this house. In Egypt it usually follows as: *el-beit tha*.[3]

The coalescing possessive pronoun would appear to be Semitic, but it is also Hungarian as, *tolla*, a pen (feather); toll*am*, my pen; toll*ad*, thy pen. Compare *tolla* here, with Nauatl *tollin*, a reed; Spanish *tulé*. This prepositive adhering pronoun is not a feature of Aryan syntax in general. This fact alone might indicate that Mexican is a Turanian language which separated from the mother tongue along with West-Ugrian (Finnish and Hungarian) before the defection of Aryan, were it not for the Aryan vocabulary of Mexican. The *postpositive* system is not Western-Aryan, but it finds many parallels in Sanskrit as *manushvát*, as Manu did. But the lack of an infinitive, which Sanskrit possesses, and which is wholly wanting in Mexican, indicates clearly the archaic form of the latter.[4]

[1] Lithuanian, *Buividzé Dialect*, Essai, par R. Gauthiot, Paris.

[2] Whitney, *Sanskrit Grammar*, 101, *a*.

[3] Tien's *Manual*, p. 52.

[4] Modern Bulgarian has no infinitive. For discussion of the development of infinitives see Max Müller, "Rede Lecture" in *Chips from a German Workshop*.

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The infinitive proper is a subtlety of speech which indicates considerable development in language.

Conjugation.—Mexican certainly appears to contain the first stages of Aryan verb conjugation, as exhibited in Sanskrit and Greek. Let us examine the Mexican verb, taking *maca*, to give, as a model: *Ni-c-te-maca*, I-it-to someone-give.

INDICATIVE MODE

PRESENT TENSE

Singular.	nicte-maca	*Plural.*	ticte-macâ
	ticte-maca		anquite-macâ
	quite-maca		quite-macâ

Notice that the third person is subjectless, with regard to pronouns, a defect common to some American languages, also to Japanese, Chinese, etc. The reflective and impersonal, however, employ the subject as: *mo-chiua*, it is doing.

FUTURE

Singular.	nicte-macaz	*Plural.*	ticte-macazqué
	ticte-macaz		anquite-macazqué
	quite-macaz		quite-macazqué

PRETERITE

Singular.	onicte-mac	*Plural.*	oticte-macqué
	oticte-mac		oanquite-macqué
	oquite-mac		oquite-macqué

Here we perceive distinctly the "*s*" sign of the future tense and the aorist system as best illustrated in the Greek. In the Mexican future and preterite plural ending, "*que*"=*ka*, I think may be seen the equivalent of the Greek perfect termination *ka*. The "*s*" sign of the future, the *augment* and the perfect sign *ka* are thoroughly Greek, hence Aryan. It is impossible that this is the ruins of an earlier elaborate system of con-

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jugation. The usage of the two tenses also corresponds largely as: *euréka*, I have found it; onicte-mac, I gave it, or have given it.

[This view, formulated in the earlier part of my work, is perhaps not adequate in the treatment of the verb.]

Desinences.—These devices, unknown to western Aryan tongues, give added significance to a verb. *Co*, *quiuh*, *qui*, mean "just done" (venir de faire) nitla-quaco, I come to eat, just arrived; *to*, *tiuh ti*, "about to do" (aller faire), antemachti*to*, you (plu.) have gone to teach. The use of the desinences is very subtle, and at times apparently arbitrary. An extension of meaning is also given by linking two verbs by *ca* or *ti*, as: *nitlaquaticac*, ti + icac, I eat standing up.

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CHAPTER VIII

The Particle "tla"—"In," its Use and History—Grammatical Gender—"Animate" and "Inanimate"—Thought Forms and Style.

The particle tla.—The Mexican pronoun *tla* is in constant use, in fact it is greatly overworked. It is an indefinite pronoun, the use of which may be illustrated in this brief sentence: *nitla-matoca*, I touch it, literally, "I it touch." The active Mexican verb must always have an object, as has been remarked before, and when the object is unknown or the speaker does not think it worth while to mention it, he merely inserts *tla* to represent it. *Tla* begins many verbs, as an integral part of the word, and is often simply initial *tr* or *dr*.

There are cases where *tla* seems superfluous, and adds nothing to the meaning, as: *tlamana*, to make an offering; *tlanonotza*, to tell a story; *tlapixqui*, to guard; *tlaçotla*, to love; *tlatlacalhuia*, to injure; *tlaicnotililli*, impoverished. As may be seen, these verbs are all active, but even a noun or an adjective may take *tla* in the sense of an object, as *tlatomalli*, something unraveled, though in this case the verbal might well govern an object. This constant repetition of *tla* is one of the defects of the language. Such extreme cases as tlatlaçotla, to love, arise from etymological complications.

A large proportion of the excess of words under *t*, which constitutes about one-fourth of the entire vocabulary, is caused by this persistent *tla*, and *tla* as an introductory particle or pronoun cannot be easily explained. Mexican grammarians derive *tla* from *itla*,

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thing. Let us insert thing and see if it is adequate. "Raveled-thing" makes sense; but there is no sense in "love-thing," "pray-thing," "oration-thing," "injure-thing."

In my opinion, *tla* must be sought elsewhere. It is simply tṛ = through, completely; Latin, trans; Sanskrit, tra. It often appears to be simply an article as: tla-tomalli, unraveled; tla-chiuhtli, a thing done. In its most general sense it has the signification of by, with, through, or because of, but in *tlachia*, to observe, from dṛç, *tla* is an integral part of the root.

A further material increase of verbs under *t* is caused by the emphatic prefix *te* (ta) which I take to be sometimes the demonstrative pronoun; Sanskrit, ta, tad; English, that; but Olmos pronounces it a syncopated form of *tequi*, much, greatly.

In.—The Mexican language has, properly speaking, no article, yet *tla* in such a word as *tlachiuhtli* is translated *a*, a thing done. But *in* is so often used clearly as an article, that it may almost be said to assume that function. Yet *in* so often appears superfluous that the reader is continually at a loss to determine its proper significance. The Spanish grammarians of Mexican are accustomed to assert that the Mexicans continually interjected superfluous words into their discourse simply to fill up, so to speak, and round a phrase. The poetry of Nezahualcoyotl[1] affords numerous examples corroborating this fact, and the same doubtless may be said of harangues in council. But poetry in all languages abounds in figures, inversions and pleonasm. In serious prose, *in* probably has always a definite use, but only a Mexican knows its proper use, and he must be an intelligent

[1] Daniel G. Brinton's edition, Philadelphia, 1880.

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person. It would be profitless to dwell on the subject here. Its place is in a Mexican grammar. But an evidence of the extreme antiquity of the word *in*, in its article sense, is found in an inscription "in Susinak," 1200 B. C.[1] In modern Persian *in* is the demonstrative *this*, and in Mexican *inin* is this; *inon*, that. This *on*, by the way, is thoroughly Saxon, meaning extension, further.

Grammatical gender.—English is a language which is strictly logical in its use of gender. It follows nature, the male takes a masculine pronoun, the female a feminine, and all that is neither male nor female is neuter, without exception. Most languages are arbitrary in this respect. In French, a house, *maison*, is referred to as *she*, while *mur*, the wall of the house, is *he*. Grammatical gender is a subtle question which cannot be discussed fully here.

Animate and inanimate.—The Indian languages usually divide all things into two classes, "animate" and "inanimate." Some philologists consider this classification as an evidence of great age, but modern Persian has "rational" and "irrational," which amounts to the same thing, and this distinction, animate and inanimate, is sometimes arbitrary.[2] For example, in Chippewa, *akkig*, a kettle, is an animate object. In Mexican, only animate nouns have plurals, as *ichcatl*, sheep; plural *ichcame*; *nualli*, a sorcerer; plural *nanaualtin; ticitl*, a doctor, plural *titici*. Spanish has had some influence in causing inanimate nouns to assume plurals.

Where it is necessary in Mexican to distinguish between male and female, and the words employed do not in themselves indicate sex, *oquichtli* is used for male and *cihuatl*

[1] Jacques de Morgan in *Harper's Magazine*, May, 1905.

[2] See Veblen, *Theory of the Leisure Class*, Introduction.

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for female, as oquichmazatl, a stag; cihuamazatl, a doe. The same method prevails in modern Persian, as: *gav i-nar*, a bull ("man cow"); *gav i-mada*, a cow ("woman cow").

Let the fact be emphasized that animate and inanimate are not synonymous with living and non-living as we understand the terms. Primitive man endowed all things with a relative intrinsic importance, aside from any natural classification. Thus the ground-squirrel might be considered so insignificant as to be placed in the class inanimate, while the camp kettle, by reason of its important place in domestic economy, was raised to the higher classification of animate things. All this may appear very childish. In fact, it is childish, but do we not daily see children talk to their playthings, and even go so far as to reward the good and punish the bad? But primitive man did have reasons for his classification since his animate things were important according to his knowledge of them.

Dialects.—The Nauatl language bears internal evidence of differences which probably result from dialectic variations due to the mingling of tribes. The Spanish lexicographers and grammarians speak of these dialects and agree that the best Nauatl was spoken at Tezcuco, the Athens of Anahuac. These variations no doubt originated in Asia. For example in Mexican we have *telpochtli* or *telpocatl*, a youth; *chiuhc* naui or *chica* naui, nine; *teuctli* or *tecutli*, a chief. The name of the Afghan language is *Pûkhto* or *Pûshto*. A philologist writes me: "philologists require uniformity." Quite so! But they do not always get it.

Thought forms and style.—Most students of Nauatl eulogize the beauty and expressiveness of that language. The word nauatl means, *sweet sounding, clear*, as defined

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by Molina. The language has at times a sonorousness to be compared favorably with Latin. But I cannot join in unqualified eulogy of the Mexican language. It is lacking in that precision which makes equivocation almost impossible in Greek or Latin. It sometimes defies construction. Brinton, on this point, says that all words not directly connected with the verb are without construction, but this, while occasionally true, is an extreme statement. The following sentence is a fair example of the capacity of Mexican syntax to express sustained thought:

No iquac ipan inin omoteneuh xihuitl in quixixitinique
Also then in this aforesaid year (they) demolished
nohuian ipan Nueva España in inteocal ihuan imixiptla
everywhere in New Spain the temples and images
in tlacatecollo in quimoteotiaya ueuetque tocolhuan,
of the gods, which (they) worshiped, the ancients, our ancestors;
ye yuh matlacxiuitl ipan ce xiuitl moetzticate in matlacome
already ten years with one year were (here) the twelve
San Francisco teopixque inic motlaxixinilique nohuian,
San Franciscan priests when (they) destroyed everywhere
ye yuh caxtolli on ce
[the temples and images of the gods] already fifteen on one
xihuitl oacico in Españoles in iquac tlaxixitin
years had arrived the Spaniards when (was) the destruction
nohuian.
everywhere. (*Annals*, 1534.)

The first clause is tautological though it is Chimalpahin's regular formula. "No iquac ipan inin" would express the same idea in this context omitting "omoteneuh xiuitl."

PARABLE OF THE WOMAN AND THE LOST COIN (Luke 15:8)

Anozo aquin zoatlacatl quipia matlactli tomin, oquipolo
Or what woman has ten tomins (she) has lost

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ce tomin amo quixotlaltia tlanextli ihuan qu'ichtoa
one tomin (does) not sweep (up) the dust and search
in calli ihuan necuitlahuiztilica quitemoa in oc quiaziz?
the house and diligently it seek until (she) it finds?

A favorite construction puts the name of a place in apposition with *ompa* or *oncan*, there, as:

Ipan inin acito xochiyaoyotl in ompa Chalco-Atenco.
Now began (the) "war of flowers" there (at) Chalco-Atenco.

The verb *ca*, to be, is little used and then usually either for emphasis or to denote condition rather than mere existence.

Ca çan oc inceltin, in macehualtin, in miquia.
(It) was but themselves the vassals who were perishing.

Redundancy is of continual occurrence.

Ipan inin poliuhque in Cuanahuaca, quinpehuato
This (year) fell the Cuernavaca, them-conquered
in Mexica.
the Mexicans.

Nopiltzé, nocuzqué, noquetzalé, otiyol,
My dear son, my jewel, my plume, thou wert begotten,
otilacat, otimotlalticpacquixitico.
thou wert born, thou hast arrived on earth.

Death of Cauhtemoctzin (Guatemozin), introducing Spanish words. (*Annals*, 1524.)[1]

Ye yuhqui ye Christianoyotica momiquilli, cruz imac
Thus Christian-like he died, cross in hand
quitlallique auh in icxicrillos[2] tepozmecatl, inic
(it) they placed, also foot-irons (an) iron-chain, as to
canticaya inic pilcaticatca[3] pochcauhtitech.
him they secured, when he was hanged, (a) silk cotton tree-on.

[1] Hanged in Honduras by Cortez for alleged conspiracy against the Spaniards.

[2] Crillo or grillo, a cricket, Spanish; in the plural, fetters.

[3] For the precise meaning of these compounds verbs linked by *ti*, which usually gives emphasis or increased significance, see a Mexican grammar. Can (C'an)=qui-ana, to seize, secure. Pilca, means to hang, to seize, to attach to.

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The Lord's Prayer Analyzed

Totatziné in ilhuicac timoyetztica, ma yectenehualo in
Our Father heaven-in thou art (rev.[1]) May be revered the
motocatzin, ma huallauh in motlatocayotzin, ma
thy-name (rev.[1]), May (it) come the thy-kingdom (rev.[1]), May
chihualo in tlalticpac in motlanequilitzin in yuh chihualo
be done earth-on the Thy-will (rev.[1]) as (it) is done
in ilhuicac. In totlaxcal momoztlae totech monequi ma axcan
heaven-in. Our bread daily (as) to us necessary (is) may now
xitechmomaquili, ihuan ma xitechmopopolhuili (rev.[1])
to us thou give (rev.[1]), and may thou us forgive
totlatlacol in yuh tiquintlapopolhuiâ intechtlatlacalhuiâ. Ihuan
our sins as we them forgive(others)their us-injuring. And
macamo xitechmomacahuili inic amo ipan tihuetzizque in
never permit us (rev.[1]) that (not) there we may go (rush)
teneyeyecoltiliztli, çanye ma xitechmomaquixtili (rev.[1])
into (great) temptation, and may thou us not let come
in ihuicpa in amo qualli.
in contact-with (the) not-good.

[1] There is a form of the verb which is called "reverencial." It is indicated here (rev.). The other words in parentheses are supplied to complete the sense in English. In such situations as in ilhuicac, h is silent and merely separates vowels, or adds stress to the vowel preceding it, as il-ooi-cac. This word is Sanskrit rocaná, heaven. *Tzin* is honorific.

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CHAPTER IX

Individuality of Languages—Inflection—Accent and Rhythm—Repute and Disrepute of Words—Ancient *versus* Modern Syntax.

Individuality.—It seems a marvelous fact that of all of the myriads of millions of human beings who exist or have existed in the world, no two individuals are exactly alike. It seems equally remarkable that after the lapse of thousands of years, nature appears to produce a duplicate of some former individual. For example, Gen. U. S. Grant strikingly resembled a certain Roman emperor. Now if unity of human speech be assumed, as a matter not yet sufficiently settled to be asserted as a fact, how has this great confusion of tongues been brought about? There are in the world, or have been in existence in past times, perhaps 3,000 languages and dialects (only an approximation not capable of proof), and it is a well-known fact that every language is foreign to every other language.[1] Even languages so near akin as Italian and Spanish have comparatively few expressions which are identical. Any untraveled native of the United States who will make a journey to Scotland and attempt to converse with the old-fashioned people of the Scotch villages, will realize for the first time the full meaning of the word dialect. He will surely return satisfied as to his own linguistic poverty. And yet Scotch is only a dialect of English, and not a very pronounced one at that. English and German are closely akin, but an English-speaking person

[1] Quoted from memory, as read in some periodical. I think the figures by far too large, but some place it at 4,000.

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at the first attempt will be unable to comprehend a single word of German. We have all met people who understand German or French, but who are unable to speak those languages. I leave these remarkable people out of the reckoning. Yet both these languages contain numerous words identical with the English words for the same things.

Inflection.—What then causes the radical difference which exists between languages? If the Aryan 5,000 years ago said *lubh*, love, *bhar*, bear, and the American today says *love*, *bear*, which though spelled differently, may have had practically the same pronunciation as the ancient Sanskrit, why could not these two individuals readily understand each other if they got together today, granting our Aryan could rise from the dead by a miracle? It sometimes happens that dress makes the man; it is always so in language. The Aryan furnished the root with strengthening devices and pronoun endings longer than the root itself in some instances.[1] If he said something like *dragámi*, *dragási*, *dragáti*, I drag, thou draggest, he drags, or perhaps very clearly drag-ha-mi, his speech could not by any possibility sound like *I drag;* but when he said *lekshi*, thou lickest, he very nearly spoke English. Expressing thought-relations by means of adhering affixes (and infixes) is called *inflection*, when the word is welded into an inseparable whole. But this subject will be dealt with more fully, farther on. It must have taken the Sanskrit-speaking people fully 1,000 years to

[1] In its general sense, *Aryan* apparently means free people, superior race. Max Müller first used the word in a linguistic sense. There has been much discussion as to the original home of the Aryans. Sayce inclines to northern Europe and cites the fact that the Aryans had three seasons, that the words *ice* and *snow* are common, also the fact that the *vocalic* system of Europe is older than that of Sanskrit. Dr. Schrader inclines to the steppes of Southern Europe and notes that the *horse* was known, but not the *ass* or the *camel*. *Ihering* names the Hindu Kush. His arguments are very full, lucid, and convincing, and I think there can be little doubt of the correctness of his conclusions.

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build up their marvelously finished system of inflection. It has taken the English-speaking people 500 years to strip off the inflectional system, inherited from Anglo-Saxon. Had we advanced a little farther, and adopted a hieroglyphic or character alphabet, instead of a phonetic, and become an isolated people, we might today abide in the tents of the Chinaman so far as language goes. He is wholly monosyllabic, we are nearly so in the language of every-day life. Instance this sentence: I saw the boy light the straw stack with a match and then take to his heels as fast as he could run. Here twenty-three monosyllables move along with a jerky, unmelodious sequence, which is characteristically English.

Why did inflection fail? Because, like dress, it became too elaborate and cumbersome. Only natives could use it intelligibly. Hordes of invading foreigners could not master the new tongue. The ignorant, when knowledge declined, made many mistakes, confused forms, and obscurity was the result. Circumlocutions were resorted to as an aid, which resulted in corrupting language till finally the whole fabric crumbled and new tongues sprang up, not founded entirely on roots, but partially on the débris of collapsed polysyllabism. But there is no apparent reason why a new inflection may not be set up in the course of time. Our English possessive is a case in point. *John's book* was once *John, his book.* I have seen it written so in my own time. The term *lingua rustica* is a stalking-horse, which I believe greatly overworked. It is employed to explain the differences in vocabulary and syntax between the Romance languages and Latin.[1] I have no doubt the most ignorant Roman

[1] Strange differences do exist, however, side by side. In Java the women speak a dialect different from that of the men. "In Sanskrit plays the women spoke Pali." Max Müller, *Science of Language*, Vol. II, p. 44.

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readily understood Cicero and Cicero could understand him. The capacity of the illiterate to employ habitually and correctly a very intricate language has been underestimated. Instance Chippewa as a lucid example. We may as well be prepared to believe that the Vedic Aryans who had never heard of phonetics possibly understood fully their sentence liaison (see p. 61).

Accent and rhythm.—There is also a rhythmic, tonic and accentual individuality in language. English has a vicious habit of slurring the final syllable of a word. Thus the word "labor" might be spelled indifferently bar, ber, bir, bor, bur. Compared with the nicety of pronunciation prevailing in many languages, English is indeed a sloven, but this habit is not confined to English since others have the "neutral" vowel. Accent is usually difficult to acquire, and by accent I do not mean pedantic pronunciation merely. There is a certain indescribable, rhythmic swing, I had almost said lilt, which every language possesses, and which can be acquired only by careful attention and long practice in speaking with those to whom the language is mother tongue. It is this subtle feature of the French tongue which brings grief to so many who think they have mastered French in school, but who are unable in France, to ask the servant to make a fire for them. The marked undulatory cadence of the Spanish is at once sonorous, melodious, and baffling to a foreigner.

Repute and disrepute.—Words, like human beings, are subject to many vicissitudes. Fortune smiles on one and frowns on another. The same word may be in good standing in one language and in bad repute in another. For example, take *pal:* ipal nemoani is an appellation of god in Mexican; the English *pal* may be a thief.[1] Again

[1] *Pal* and *cul*-ly are no doubt borrowed from the Gypsies since Romany is an Indo-Iranian tongue.

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there are vulgar words not admitted in any dictionary, whose roots lurk in speech and may be traced back to prehistoric times. They will never die, though they may be denied print. Others again hover on the ragged edge of respectability. Some words are refused admittance to so-called Saxon dictionaries which are freely admitted to the dictionaries of other nations less prudish. Then fashions in words change, and a word in good repute now, may be fallen very low a hundred years hence.

Ancient versus modern syntax.—Ancient thought-forms seem disjointed and scanty compared with the analytical methods of modern tongues. For "I wish to eat," the Mexican says: "I wish, I shall eat." The same lack of continuity renders the Assyrian uneven and disconnected in its style. In Tupi the tenses are clumsily pieced out by means of adverbs marking the time when an action occurs, and the modern value of connectives is not clearly appreciated. Thus: "Peru guba ohaihú, oci *abé;*" "Peter his-father loves, his-mother *also*," for the more precise and elegant "Peter loves his father and his mother." But in its "desinences" (p. 63) Mexican possesses a device of syntax which in English would require a separate word. Thus: in aquin o-aci-*co*, "he who has just arrived," where *co* indicates an action completed at the present moment like the French: Il vient d'arriver.

And yet the significant fact remains that these ancient tongues are often competent to express any idea which the human mind is capable of conceiving. The Chinese language, though apparently indefinite to a foreigner, is said by critical students of the language to be wonderfully precise and that equivocation is almost impossible unless it be intentional. Clavijero remarked that Nauatl was capable of expressing the most abstruse conceptions of

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the Christian religion without the aid of a single foreign word.

The chief obstacle in adapting such languages to the needs of modern civilization is the *lack of words* for the multitude of things of modern invention. The Mexicans, for example, had no horses but they adapted *caballo*, the Spanish name, as cauallo; but for *bridle* they invented the formidable compound *cauallo-tepuz-tem-meca-yotl*, literally, "horse-iron-mouth-cord [thing"].

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CHAPTER X

LANGUAGES AS TO THOUGHT-FORM — Incorporation — Agglutination — Classification — Monosyllabism — Inflection — Relative Merits — "Speak" Conjugated in Five Languages — Unity of Human Speech — Persistence — Phonetic Changes.

Languages have been classified as *agglutinating*, like Turkish; *monosyllabic*, as Chinese; *inflecting*, as the Latin and all the Indo-European group; and *incorporating*, like some of the American languages.

Incorporation.—Mexican has been described as a typical incorporating language. What is incorporation? Professor Henry Sweet says: "If we define inflection as 'agglutination run mad,' we may regard incorporation as inflection run madder still: it is the result of attempting to develop the verb into a complete sentence."[1] In the same connection he says: "Incorporation is nowhere more logically carried out than in Mexican." I think there is at least room for argument here. In its development, language doubtless followed the universal law of nature that the concrete must precede the abstract. A thing, in other words, must exist before we can speculate on its origin, or discuss its properties. It may be shown that Mexican is scarcely an incorporating language at all, if indeed there really be such a thing as an incorporating language.

Analysis resolves all things and substances eventually. Here let me recall a thought of Albert Gallatin's, no mean authority, by the way, who has a few words to say in this

[1] Sweet, *History of Language*, p. 69. It is manifest that no such *conscious* attempt was ever made by any people in the growth of a living language.

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connection. I give the substance of his thought, not his exact words. He sensibly concludes that the first whites who attempted to learn the language of the Indians, being guided solely by sounds, and having no written material to exercise the eye upon, naturally mistook phrases for words, sometimes, and consequently joined together particles or words in cases where thought-form really allowed a hiatus. He gives some examples. Continuing in his line of thought,[1] suppose I say in colloquial English: "Gimme some bread." Would not a foreigner be almost sure to understand "gimme" as one word? The Spaniard says: *digaselo*, tell to him it, but Spanish is not an incorporating language, nor is it agglutinating beyond this one single feature, the personal pronouns, in so far as I can recall. When the Spaniard coined the word, "correvedile," "run-see-tell-it," for talebearer, he clipped old words to make the new. Does he compound, incorporate, or agglutinate?

In fact the only feature of Mexican syntax which can be, strictly speaking, classed as incorporative is the curious prepositive object-pronoun (chap. vii). I will take Sweet's own example, nic-qua, I it eat, where *c* (qui) is the incorporated pronoun. Next he considers "*ni-nakaka*," "I meat eat." The Mexican spelling is "*qua*" which is not mentioned here as a correction of Professor Sweet's spelling, since he employs a uniform phonetic system in his admirable book. "I meat eat" illustrates a very common form of expression in Mexican. I admit that the dropping of *tl*, the termination of naca*tl*, meat, is an argument in favor of the theory of incorporation, but there must always be an interval, be it ever so slight, between the noun object

[1] "Introduction to Hale's Indians of Northwest America," *Transactions American Ethnological Society*, 1848.

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and the verb, and the thematic noun in Mexican had a general collective quality like the Greek neuter, as for example Azteca from Azteca-tl the singular. This hiatus is distinctly marked at times as *calli* house, but no-*calh*, my house.[1]

Mexican grammarians say that these clippings, as the *tl* of *nacatl*, are made largely for purposes of brevity and euphony. But they always occur at a natural cleavage point, if we assume an original agglutination of particles. They cannot be compared at all with such mere mechanical devices as the *t* in the French sentence: A-*t*-il fini? I think the cause of this usage lies farther back than brevity or euphony. Savages had plenty of time to pronounce entire words and were like ourselves scarcely conscious of euphony.

In Cree the noun incorporates an objective pronoun-*postpositive*, as: *móokooma*, knife; net oo-móokooman-*in*, I have a knife.[2] But the Aryan verb incorporates its pronoun *subject*, as leg-o, I read.

Professor Sweet says, furthermore, that *ni*, in *ni*-nacaqua[3] is additional evidence of incorporation. Why? It is true that it is always printed so, and *ni* is called inseparable by the grammarians, while *ne* and *neuatl* are called "separable" forms for the pronoun *I*. The question is merely one of sounds which coalesce readily or the contrary as the case may be. "Igo," "yougo," might look like incorporation or synthesis, while "one goes" and "Edward goes," would remain analytic. There are cases where *ni* does syntactically stand alone; *ni*-tlatoani is an example. In such cases the copulative verb *be* is omitted universally in Mexican. Inserted, it would read *ni ca*

[1] Olmos, *Grammar Nahuatl*, p. 200.

[2] Howse's phonetics are English; "Italian," net u-múkuman-*in*.

[3] Sweet, *History of Language*, p. 70.

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tlatoani, I am a chief, though this would not be correct Mexican since *ca* is not properly *be*, but the Spanish *estar*.

Mexican syntax is synthetic, not incorporating. Its postpositives are as readily detached as is *ward* in the English word home*ward*. But it is by no means so complex in grammatical structure as is Algonquin or Japanese, for example. The opinion of Clavijero previously referred to, who found it capable of expressing every mystery and subtlety of the Christian religion without borrowing a single word, is surely a strong testimonial for its power of expressing sustained thought.

Agglutination.—A few lines will suffice for this subject. I mention it here partly to render my book symmetrical but chiefly to show that Mexican is *not* agglutinating. All the earliest systems of writing appear to have been syllabic. Sanskrit and Japanese are so today, as well as Cherokee in the United States. The following sentence from King's *Assyrian Grammar* will illustrate the system of syllabic writing; the hyphen separates syllables, the words are spaced: *i-na di-ma-a-ti a-lul pag-ri-su-nu; ina dimati alul pagri-sunu;* on poles I hung corpses-their. Stratonike (wife of Antiochus Soter) is spelled (in Assyrian) *As-ta-ar-ta-ni-ik-ku; Antipatros, An-ti-pa-at-ru-su.*

The repetition of a vowel did not necessarily mean it was to be pronounced twice. Remember the unit was a syllable instead of a letter. Thus di-ma-a-ti, simply spells dimāti with the *a* long. This system of writing is perhaps an additional evidence of the agglutinative character of all languages at first. Turkish is a good example of an agglutinating language. It tacks on particle after particle in a most astonishing fashion. Here is an example: *Sev* is the root-word for love; *sevmek* is the infinitive to love;

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sev*me*mek, is not to love; sev*ehme*mek, is not to be able to love; sev*der*mek, is to cause to love; sev*dirme*mek, is not to cause to love; sev*derehme*mek, is not to be able to cause to love. In this linguistic sandwich the infinitive is practically expanded into a sentence.

Classification.—Just what fixes a language in a given class is not easy to tell. In fact there is no exact line which divides any one class from any other class. Languages constantly defy classification. According to Max Müller a Turanian language should be, not only agglutinating, but terminational. But the Rev. H. Roberts inclines to class Khassi as an agglutinating language and says that its particles are without exception prepositive. For example, the verb *lait* means free; *pyl-lait*, to make free; *jing-pyl-lait*, freedom or liberation. Yet this ancient language seems to be Turanian according to Mr. Roberts, though it would appear, from the example, to be monosyllabic, rather.[1]

Since the American languages are classed as incorporating it may be interesting to compare a Selish (Flathead) verb with the Turkish. *Tneskoli*[2] (operor) to do, to be busy, is the primitive; *kol* is the root; tneskol, the form in composition; ieskolm, active causative, I advance a thing, I do; tnesklkoli, reduplication, I do several things; tneleskoli, iterative, I do it again; tneskolmluisi, frequentative, I do it frequently; tneselkok'li, diminished action, I work lightly or easily; kaeskolstegui, reciprocal, we work to our mutual advantage; tneseskolmisti, reflective, I fashion myself; or tneskolsuti, I work for myself.

[1] Khassi is classed by Mr. Roberts in the indefinite group, "Sub Himalayan." He estimated that it is spoken by about 250,000 people who inhabit an isolated district of Assam. The language has only lately been reduced to writing. [Actual population, about 175,000.]

[2] *Tnes*, pronounce tenés. *Kol* is possibly identical with Sanskrit, *kar*, to make, to do; compare the Turkish *sev* with Sanskrit *sū*, to generate; Mexican, tla-ço-tla, to love.

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Monosyllabism.—Monosyllabic languages or isolating languages may be adequately represented by Chinese, in which every word is theoretically a monosyllable. Some of these primitives are also idea words, that is, they express an idea in themselves as *jin*, a human being, but specifically, a *man; fu-jin* is woman, and *ur-jin*, child. Hence most Chinese words logically are not monosyllables. The early use of arbitrary ideographs or characters instead of a flexible alphabet, has arrested the development of Chinese and fossilized the language.

Prof. Henry Sweet in speaking of Chinese syntax makes some statements (also made by others) which lead to conclusions I am unable to reach. I should like to copy them in full, but can only give the substance here.[1] He dismisses peremptorily (and properly) the notion that Chinese is an analytical language which has outstripped even English in freeing itself of inflections and returning to a monosyllabic state. He further says that there exists indisputable internal evidence in the language itself that it was once polysyllabic. These two statements appear to me contradictory. If the Chinese was once polysyllabic, it is safe to assume that it had for "relation" signs either the system of terminations known as *inflection* or the other system known as *postpositive* which is, after all, a species of inflection. In fact Chinese employs in practice, both *prefixes* and *affixes* today, which are in no way different in function from similar particles in Magyar, Assyrian, Mexican, and Japanese, instance *ti*, the genitive sign in Chinese, or *mun* the plural sign. *Ti* is employed in the same way in Assyrian and Mexican, and is our English *ty*. In fact such particles whether separate or agglutinated are absolutely necessary to every language. For example,

[1] Sweet, *History of Language*, p. 74.

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tsai means *in, on; nüi, interior; wai, exterior; tsai fang-tze nüi, inside the house; tsai fang-tze wai, outside the house.* Along with the idea-words, like *boy, dog, wheat, book,* there must be relation or form-words like the Chinese *ti,* the English *of,* the Mexican *co,* or the Japanese *ga,* the sign of the nominative case. It seems impossible that Chinese could ever have been polysyllabic. Some vestiges of the system would surely remain such as *ward,* in the English word, home*ward.*

The basis for this theory of the former polysyllabism of Chinese lies in the fact that certain letters have disappeared from Tibetan words within comparatively recent times.[1] Tibetan is a monosyllabic language, in the class with Chinese and certain letters in literary Tibetan are silent. Contemporary Chinese inscriptions indicate that they were sounded in the sixth century, A. D. It is said that in certain parts of the country they are still pronounced. W. D. Whitney holds this as important if proved true and it appears to be true.[2] But a particle may perish without affecting the monosyllabism of a language, and it seems to me the cases are not parallel. Suppose, for example, the Chinese sign "*ti*" of the genitive case should become useless through juxtaposition or some other device which rendered *ti* superfluous. Then *ti* might perish, first the vowel, the *t* lingering for awhile as a useless silent letter, a parasite on the head word, until it, too, would disappear. Take our English possessive, "John's book," once "John his book." It would be a parallel case to say that *s* was once a syllable of the word John's. If the case were to go a step farther, and sometime in the future the posses-

[1] According to A. H. Sayce, Chinese has undergone serious phonetic decay (*Assyrian Lectures,* p. 153). Max Müller, however, maintains the contrary, *Science of Language,* Vol. I, p. 50.

[2] Cf. Keane, *Ethnology,* pp. 207 ff.

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sive were indicated by an adjective, "the John book," the philologist of that day might claim that English never had any other but the adjective possessive. Lacouperie appears to have proved beyond doubt that Tibetan now monosyllabic was once polysyllabic.[1] Hence the inference that the same thing has occurred in Chinese. But admitting this fact we have only illuminated a *period* in linguistic development. The *beginning* and the *end* in the growth of language can never be positively determined. Granting that a language is now monosyllabic, English is nearly so, in the past it may have been polysyllabic as we know English to have been, and we also know that English was originally built around *monosyllabic* Aryan *roots* which we dare not ignore simply because we cannot account for their origin or assign a date to their beginnings. Tibetan has apparently undergone some extraordinary phonetic changes, and the same may prove true of Chinese, but I know of no adequate scientific study of Chinese phonology and its history, which will decide the matter.

Inflection.—Inflecting languages are, for example, Sanskrit, Greek, Latin, French, Italian, Spanish, and German. They are so well known as to need no special treatment here, beyond the remark that the conjugation of the Mexican verb (p. 62) places that language indisputably in the inflected class. Other American languages belong there. For example, Chippewa is a marvel of inflection, beside which ancient Greek is not difficult, and its vowel changes are developed harmoniously and symmetrically.

For a long time the tendency in human speech has been to discard *synthetic* forms for *analytic*. Thus instead of expressing the pronominal idea in the verb ending as in

[1] See article "Tibet," *Encyclopaedia Britannica*, by A. Terrien de Lacouperie. Also Vol. XVIII, pp. 774, 779, article "Philology," by W. D. Whitney.

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Latin leg-o, I read, we say in English "I-read." The Roman youth said to his sweetheart, *amo te*, I love you. There was no need of the analytic form *ego* amo te, unless he wished to be emphatic. Both forms of expression have their advantages. The analytic is simpler but the synthetic may be very concise and expressive. The inflectional method required the memorizing of such a multitude of forms built upon the same root that it seems incredible that the unlettered could have recognized all of them as cognates. It is more probable that to most people they were, in their disguised aspect, separate forms. For example, would it not require a scholar to analyze the Sanskrit compound *Hitopadeça*, "given for instruction" as derived from *dhā*, to give + *upa*, for, + *diç* to point out, guide instruct? It surely would. Did the illiterate Greek recognize the root *θαν* in *τεθνώτος*? It is to be doubted.[1]

The relative merits of the two systems may be briefly shown in a conjugation of the present tense of the verb *speak, talk*, in five languages.

LATIN	
dico, I speak	dicimus, we speak
dicis, thou speakest	dicistis, you speak
dicit, he speaks	dicunt, they speak
ITALIAN	
parlo	parliamo
parli	parlate
parla	parlano

Both Latin and Italian, as may be seen, have *six* distinct forms and pronouns are not necessary.

[1] In this connection I may suggest that grammar existed and was taught long before the art of writing was in existence. How else could such involved tongues as Greek, Sanskrit, Quichua, and Chippewa have been preserved from corruption and final dissolution? It is said that the aborigines of America gave their children at an early age careful instruction in grammar. *Hand Book of Indians*, Vol. I, "Education," p. 414.

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GERMAN	
ich rede	wir reden
du redest	ihr redet
er redet	sie reden
ENGLISH	
I speak	we speak
you speak	you speak
he *speaks*	they speak

German has *four* forms out of a possible *six*. English has but *two* forms, a veritable pauper, and, since pronouns are necessary, it might as well have but *one* form.

MEXICAN	
ni-tlatoa	ti-tlatoâ
ti-tlatoa	anmo-tlatoâ
tlatoa	tlatoâ

Here there appears to be but *one* form, but there are really two since the lengthening of the final vowel of the plural to distinguish it from the singular is really inflection. It will be observed that the *third person* singular and plural has no pronoun, a feature which is frequently found in Indian languages.

Inflected speech was undoubtedly built up in the first place by the gradual agglutination of independent significant particles. But when these particles began to lose meaning to the masses of the people and a host of forms[1] required precision in grammar and nicety in pronunciation to avoid equivocation, and the old process began over of piecing out the meaning with other words which became finally auxiliaries, adverbs, or prepositions.

Unity of human speech.—The reader has doubtless observed in these pages from time to time, that the origi-

[1] The possible number of mutations of a Greek verb was about 570; of a Latin verb 171. I quote from memory, having lost my reference. I confess the total surprised me.

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nal unity of human speech is tacitly assumed though nowhere directly asserted. Positive declarations on this subject are hazardous. The prehistoric period of man's development is, in all probability, of very much longer duration than the historical. To postulate prehistoric speech is impossible. It is also very difficult for the ethnologist to explain scientifically the differentiation which resulted in such extreme physical and mental types, as the negro and the white man exhibit. It is possible that a branch of primitive man may have for many thousands of years remained stationary in Africa, while his more favored brethren advanced steadily to the high intellectual standing of the Aryan nations. We have seen how languages may exist unchanged for great periods of time, and a like arrest of physical and mental development may be assumed as not unreasonable.[1]

Persistence.—This may be a fitting place to refute the nonsense so often repeated about the rapid changes in the languages of America. I have read repeatedly that the vocabulary of these languages may change so rapidly as to render the tongue unintelligible, within a lifetime. In that case the grandfather could not converse with his grandchildren with any satisfaction. I call this plain nonsense; it might take a stronger term to express the case properly. We have seen that it takes hundreds of years to make material changes in syntax, and we have seen that syntax is no more enduring than word forms. Anyone who will study the words father, mother, house, fire, cow, dog, will at once realize their great antiquity. An exception to this statement may be made in the case of some non-Aryan tribes for special reasons. John

[1] Finnish has remained practically without change for 1,600 years; Sweet, *History of Language*, p. 118. Also see statement of Joseph Edkins, footnote 3, p. 17.

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Fraser, in "An Australian Language," says that the aborigines of Australia were accustomed to cease using any word found in the name of a dead man, immediately upon his death. If a man were called "Fell in the Water," a new word must be found for water after his demise. The reason of this curious fact was that they believed a mention of the name of the defunct, would disturb his spirit, which was capable of harming the living.

Phonetic changes.—One fact will surely arrest the attention of every observant reader. There are usually two or three words for the commonest things. This might appear to be in favor of the argument that language had original development from several independent centers, and that a subsequent mingling gave the multiplication of words like *tlacatl*, *ἀνήρ*, *ἄνθρωπος*, *mas*, *homo*, *vir* for man; *deus*, *bog*, and *god; viç*, *chan* (*kshem*, *ham*), *cal*, and *cab* for house. These independent words might have been scattered and commingled by the incessant migrations of mankind and the mingling of different races through wars and conquest. But the fact that these roots do not appear to be in the least localized, as, for example, pilli, boy, found in Assyria and Mexico, would seem to indicate that all mankind were one, until after definite articulate human speech was firmly established.[1] But very strange permutations may occur through phonetic changes. Thus Fraser derives *ka*, eat, and *edo*, eat, from the same root, *k* and *t* being equivalents.[2] The three words given here for *god*, for example, are really not *roots*. They are probably all *derivatives*.

[1] There are Hebrew roots in Khassi which the presence of Arabic will not explain. Introduction to *Khassi Grammar*, by H. Roberts. The Ainu of Japan have been shown to be Aryan in speech by Rev. John Batchelor, *The Nation*, September 12, 1907, "Notes."

[2] *An Australian Language*, Introduction.

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These independent forms may all have been developed in the same community through figures of speech. But figurative language, as a rule, is plainly traceable to its origin, and simile is usually more verbose than the original, as: "ship of the desert," a camel; "king of beasts," a lion; "lord of creation," man. When we read that the Arabs have some fifty words for camel, we must allow for the imagination of the writer, as well as of the Arab. In fact Tien gives but three; naqa(t), ebl, jamal. Sacroug gives two: gamal, naka, a she-camel, and naca-tl is the Mexican word for meat.[1] (The *g* of Egypt is *j* in Syria.)

Max Müller, in a moment of doubt, practically asserts that we have no right to say that the Latin *quatuor* is a cognate of the Sanskrit *catûr* (four), or that the Greek *tettares* is in any sort of relationship to either, and he names other examples to support his idea of the moment. But there is an explanation that is convincing for the relationship existing between catûr and quatuor (see "Phonology," chap. xi). Phonetic laws apply uniformly, and operate through long periods of time, but not in *every* case. We must recognize phonetic "sports" just as we recognize sports in plant life.

A novice in comparative philology would scout the idea that any relationship exists between Aryan *ekwo*, the Sanskrit *açva*, horse, the Latin *equus*, and the Persian *asp*. But the laws of phonetics incontestably prove a common origin. If we were to place in the same category "hack," "whoa," and "get up," a smile would be excited, and yet they are perhaps all from "açva," hack being the first syllable and whoa the last. *Whoa* is said to be a "horse call" from China round the globe to

[1] Gabriel Sacroug, *Traveller's Interpreter, or Arabic without a Teacher*, Cairo, 1874.

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California. In parts of France people say "ûp" for "get up," the Utes of Colorado say the same. The latter phrase probably should be "get ep." No farmer says "get up" until after he has passed under the influence of the pedagogue. The real meaning then was originally doubtless "get horse," "go horse," since "up" (ep) may be traced through *hippos* to the same source. I have thought this paragraph worthy of print even though it have no better warrant than "travellers' tales."

If we assume the unity of human speech, as we doubtless shall be obliged to do in the future, we may then be justified in assuming word relationships which cannot be proved absolutely by any known laws of derivation.

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CHAPTER XI

PHONOLOGY.—General Remarks—Vowels—Dentals—Gutturals (the *kg-q* and *kg-s* Sound shifts)—Vocalic Consonants—The Place of Mexican—Labials—Line of Descent and Assimilation—The Saltillo.—Accent.

General remarks.—Heretofore I have given no more attention to phonetics than what I deemed necessary to explain the case in point and to support the thesis which is the common origin of the Mexican and the Indo-European group of languages. The remarks in this chapter are merely a brief sketch of elementary principles, since phonology is, in itself, a subject sufficient to fill a large volume.[1]

We have all doubtless wondered at the formidable compound consonants of Sanskrit, Greek, and Arabic, such as *kh* in *kh*edive, shei*kh*, *bh* in *bh*agava and combinations like *phthisic*, *pteron*. It is not easy to say always just how the ancients pronounced these combinations. One thing is reasonably sure, none of the letters were silent. In *bh* the *h* may have been a full aspiration or the briefest possible stop and not a distinct aspiration like our English *h*. Arabic *kh* is neither *k* nor *h* but both. I confess that I cannot pronounce it exactly as an Arab does. It is a very deep guttural, harsher and more throat filling than German or Scotch *ch*, or Spanish *j*. Ask a German to pronounce *knabe*. You will notice that he brings out the *k* distinctly with a suggestion of a vowel between the

[1] See the author's *Mexican in Aryan Phonology* and Gray, *Indo-Iranian Phonology*, for special information bearing on the subject of this book, also Tolman, *Old Persian Inscriptions*.

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k and the *n*. There appears, however, to be no trace of a vowel in the Arabic *kh* as there is in knabe. Pteron was once *p^{e}teron; *phthisic* was probably *ph^{e}thisic.

As man became more civilized, there was doubtless a tendency to tone down speech and simplify harsh compound combinations. Arabic and Quichua are still marked by harsh consonants. The guttural-palatal series is today, in most languages, g, k (c), (*h* a survival), German ch, j. The labial series is b, p, f, v, w. The dental series is d, t, th (in thing), th (in that). The liquids are l, r. The sibilants are s, z, ts, tz, zh, j(dzj), ch, sh. The nasals are *m* and *n*.

The general tendency, apparently, is to crowd sounds forward in utterance, especially in American languages. Thus Mexican has lost *g* entirely; *k* only remains. The Sanskrit ç (once *k*) becomes: *c* (*k*), *ch*, *s*, *sh*, *x*, in Mexican. Apparently an impulse for an easier sound has dropped *b*, beginning the series with *p*, so that the series consists of *p*, *u* sometimes, which is zero in the series. Of the liquids, *r* is either lost or becomes *l*, and *l* is never initial. In the dental series, Mexican has lost *d* and *th*, only *t* remains, but Sanskrit d, dh, become *ch*, dhi = chi, palatal or sibilant, and it may be that *t* also becomes a sibilant or the equivalent *ch*.

But there is no synchronological uniformity in consonant mutation, exhibited in the languages of the world. Grimm's law is of universal but not uniform and synchronous application, hence it must not be strained because the same language may offer side by side words which do not conform as Greek κῶς, πῶς.

But we see Mexican losing *g* entirely, which English retains in full vigor. Aryan *k* becomes *h* (ch) in English as *c^{v}anis*, dog, English *houn*-d, but we have English *chin*

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and Mexican can-tli. English is older in one respect than New High German, having one less "sound-shift."[1]

The post-consonantal "aspiration" of Sanskrit is lost in most of the other Aryan languages, or more properly speaking, it is peculiar to Sanskrit, and is less often found in Greek as: bhar, carry; phérō, Greek; fero, Latin; bear, English; Mexican, pal; bah, *bagh, Greek, πάχυς; Mexican, ua-paua; English, bough; bhraṭr, brother; phrátēr, Greek; frater, Latin; bruder, German; dih, *dhigh, rub; Greek, θίγω; Mexican, ta-taca, scratch; English, dough.

As to vowels, the Mexican is rich, in fact nauatl means sweet-sounding, while English is, to say the least, not a euphonious language and is, to tell the truth, weak in vowel sounds chiefly because it has largely banished diphthongs, properly speaking.

Elements of phonetics.—In the rudimentary principles offered here, I do not pretend to do more than set down the facts necessary to a proper comprehension of this work. Without these explanations, my book might, in places, seem inconsistent and confusing. For exact classified treatment of the subject read *Mexican in Aryan Phonology.*

Vowels.—Vowels are unstable; *a* in one language may be au = o, or ai = e in another language, or in a derivative in the same language; *u* and *o* are constantly changing places; *a* may become *e* or *i* as: agni, fire, Sanskrit; ignis, Latin; English, ingle-side. Vowels and roots are frequently strengthened. For instance *ma* in Sanskrit is strengthened to *man; lip*, Greek, to leave, becomes *leípo* in the present tense; *venir*, Spanish, come, becomes *vengo*, I come, *viene*, he comes. The real stem may always be traced somewhere, as in é*lip*on, the aorist of leípo. Old

[1] "Sound shifting" may swing around a circle and finally reach the starting-point.

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Aryan is known to have had the vowels *a*, *e*, *o*, and *i*, *u*, which two latter were much employed in the formation of diphthongs. Sanskrit lost a large part of its vowel heritage and became a monotonous a-language.[1]

The equivalence of vowels and diphthongs existing between Mexican and Greek and Sanskrit is exhibited in the following table:

Mexican.	*a*	*e*	*i*	*o*	*u*	
Sanskrit.	*a*	*a*	*i*, *a*	*u*, *v*	*vu*	
Greek...	α, ε, η, ο	ε, α, η	ι	υ	*f*	
Mexican.	*iu*, *yu*, *yo*	*ui*	*ua*	*iui* (*u*)	*ai*	*eo*, *eu*
Sanskrit.	*u*, *yu*	*vi*, *va*	*va*,(*r*)*a*,(x)*a*	*u*, (*vi*), *iv*	*ē*	*au*, *a*(x)
Greek...	υ, **jυ*, ζυ	ϝοι, ϝι, υι, υ, ω	ϝα, α	υι, **jυι*, υ	αι	ευ

x indicates a missing *labial.*

The pseudo-labial *u* performs a vicarious service: (1) it may represent a *labial;* as Mexican, *auh*, also; Sanskrit, *api;* (2) a lost *g;* as Mexican, *uapaua*, get rigid; Greek, *πάχ-υς*; (3) a lost *r*, as Mexican, *nauatl*, clear; Indo-Iranian, *nal;* Mexican, *naua*, dance; Sanskrit, *nṛt.*

The vowel *i* (*y*) may represent a lost *r* as in *quiyauitl*, ghṛ+ab; Sanskrit, rishi; Pali, isi. The change of *b*, *p*, to *u* is of very wide geographical reach, as: Mexican *kauh*, ape; Sanskrit, kapí; Pali, vuddho; Sanskrit, buddhá. The same is true of *u*=*r*, *l* as: Mexican, *xau*-a; Latin, *col*-or; Old French, échauder; Latin, excaldere, scald. The change of a *palatal* to *u* appears to be Indo-Iranian, as: Mexican, ua-pa*ua*, *πάχυς*; Panjâbi, nēul; Sanskrit, na*k*ula.

The *vocalic* system of Mexican lies *between* Greek and Sanskrit.

Dentals.—Old Aryan had the dentals *t*, *th*, *d*, *dh.* Philologists say they were more truly dental than in

[1] For a brief discussion of the primitive Aryan vowel system, cf. Professor A. S. Wilkins, *Encyclopaedia Britannica*, "Greek Language," Vol. XI, p. 127; Professor E. Sievers, Vol. XVIII, p. 788; *Mexican in Aryan Phonology*, pp. 7, 8. Also, Pezzi, *Aryan Phonology*, p. 51.

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English, the tip of the tongue being pressed against the teeth in utterance.

Gutturals (eastern and western), the kg-q and kg-s sound shifts.—There were two sets of back consonants, palatals and gutturals, and these were aspirate or non-aspirate: thus *g, gh, k, kh.* This subject is rather abstruse, but each of these series was again classified as pure palatals and labio-velars, those which had an accompanying parasitic *v* as *gvarm*, warm; *kvos*, what. The palatals divide into an *s-series* and a *k-series*, the *s* being *eastern* and *k, g* or *h, hw*, the equivalents, *western.* K becomes ç (s) in Sanskrit, as in çvan (svan), dog; and remains *k* or *h* in the western tongues and partially in Mexican; as, *κύων*, dog, Greek; canis, Latin; hund, German; *itzcuin*, Mexican = *skuin. Clallam is *skaha;* Snake, *sharay.*

It is necessary to understand these sounds else you cannot see the connection between Greek, *κύων*, German, *hund*, and English, *hound;* Mexican, calli, house; Old Persian, kal'a; Sanskrit, çala(?); Romany, kher, khel.[1]

The labio-velars, through the influence of this associated *v* or *w*, became in western tongues: *p, b, f, w, v*, as: *g^{v}arm, Aryan, warm; gharma, Sanskrit; formus, Old Latin, warm; Germanic, cognate, burn; Greek, thermós.

Catûr, four, Sanskrit; tettares, Greek; chetuire, Russian; quatuor, Latin; pedwar, Welsh; fier, German; four, English. Here we have for Aryan *k, c* in Sanskrit, *ch* in Russian, *t* in Greek, *qu* in Latin, *p* in Welsh, and *f* in German.

Aryan *k^{v}o-s, who, what; Sanskrit, kas; Ionic, kōs; Attic, pōs; Latin, quod; English, who, what; Mexican, cuix. *Generally*, then, the eastern languages have palatals,

[1] When I speak of distinguishing these sounds I do not mean that you must understand the cause of such changes. No one can say truthfully that he can explain the subtle causes of phonetic change.

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an *s*-series, and a *k*-series. The eastern, *s*-series (ç) appears in the west as *k*, as Sanskrit, çatam, hundred; Lithuanian, szimtas; Latin, centum (kentum); Welsh, cant; English, hundred. The labio-velars of the east change in the west to *q*, *qv*, *hw*, or a *labial* as *four* and *what*. This change should not occur in Mexican. *Uentli* an offering is from Sanskrit, *hū* **ghū;* Latin, *fu*-t-is; *uitztli*, thorn, from German *gerste*.[1] But Pimentel employs a parasitic *v* as in *kvallotl*, beauty, *καλόν*, for which I find no phonetic warrant (see p. 99).

But some philologists contend that the entire subject of human speech-sounds is too little understood to be dealt with conclusively, because up to the present time, investigation has been confined largely to Aryan sounds. Since the organs of speech appear to be the same among all tribes and colors of men we may naturally expect the same phonetic changes to occur. In fact, general phonetics are the same, and to make exceptions of the American languages, as some do, is unsound philology. When universal philology has been written we shall hear no more of this bugbear.

The "continental" pronunciation which is employed in this book, is also known as the Italian. In Mexican, *h* is simply a device to indicate the nature of vowel sounds; thus Anahuac is pronounced A-ná-wac, not anawhack. For this reason *h* is seldom used except with *u*, which it may precede or follow.

Vocalic consonants were common, apparently in Aryan. Now, practically only *r* and *l* remain and they are confined to Sanskrit. These sounds have occurred so often in the body of this book that it was deemed necessary to explain their character as they occurred, hence no repetition is

[1] Cf. *Mexican in Aryan Phonology*, Tables C, D.

[2] Modern Khassi admirably illustrates these sounds: bh=b-ha; kh=k-ha; dh=d-ha; gh=g-hi; ph=p-huh; rh=r-hem; th=t-haw; Roberts, *Khassi Grammar*.

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necessary here, beyond the general statement that a vowel sound, more or less distinct, accompanies them, as: ṛ (ar), rise, go, fit, ṛnóti, árta, ṛtá.

There was also a vocalic *n* in Aryan as, *tntó*, stretched. Other languages insert a vowel with or without the *n*, as Greek, *tatós;* Latin, *tendere;* Mexican, *tentli.*

The place of Mexican.—With regard to the split *k-s*-sounds, Mexican seems sometimes to stand with the east and again with the west in çvan, Sanskrit; canis, Latin; itzcuintli, Mexican (*itzc* or *izc* = *sk*).[1] Here it is old Aryan rather than eastern or western, but *kas*, Sanskrit, (and *cuix*, what, Mexican?) are both eastern, while *what* and *quod* are western. An anomalous change of Sanskrit *rt* to Iranian *sh* appears to occur also in Mexican; as Sanskrit, *ártha*, property, goods; Púkhto, *ash*ya; Mexican, *ash*-ca, as n'axca, mine, that is, my property; Zend, *asha.* Sometimes *t* is dropped as: Mexican, *naua*, to dance; Sanskrit, nṛt; Hind., nautch.

Strengthened roots have been dealt with already. Sometimes an *m* or *n* infix occurs as *lab*, *lambánō*, Greek; con*jug*ate, con*junc*tion; but this device is seldom found in Mexican.

Initial *m* and final *n* are sounded very faintly in Mexican. *Mexica*, Mexicans, is pronounced very nearly *exica;* *totolin* or *totoli*, hen. *Ch* is the Spanish *ch* as in church, except in such a position as in the word opochtli, when it is practically *sh*. *X* has the sound of *sh* or *ch*.[2]

Labials.—It is a remarkable fact that of the entire labial series of consonants, *p*, *b*, *v*, *w* (*u*), the Mexican has lost all but *p*, *u*. Olmos, however, asserts that at the time

[1] For phonetics see *Mexican in Aryan Phonology.*

[2] The history and exact character of this sound is not clear. Olmos says, *Grammar*, p. 198, that it should be sounded like *x* in Latin *dixi*. The Spaniards pronounce it like *j*, German *ch*, but Pimentel says it resembles initial *ch* but is not the same.

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of the conquest, the Mexican women often employed a *w-sound* where the men uttered the *u*(*oo*)*-sound.* It is an unaccountable fact that *b* was very rare in Old Aryan.

G is missing from the Mexican, which would indicate a forward movement of sounds.[1] This general decay of *g* is wholly different from such a case as *gvarm, English, warm. Here the loss of *g* may be attributed to the influence of the accompanying semi-vowel, *v*. There must have existed a slight tendency toward uttering a *g*. Olmos says at times the natives *appear* to pronounce a *g* but that in his opinion the real sound should always be *c* (*k*).[2]

Line of descent and assimilation.—It will be seen from this short discussion of phonetics, that consonants very seldom *cross* a series. The change, if any, is to another letter in the same series; in other words, once a labial, always a labial. Thus the Sanskrit, pāna, drinking, becomes Mexican tla-uana; duhitṛ becomes tiuhtli, both dentals. *Water* and *atl* stand side by side. Mexican having dropped the *v* which Greek, did universally. How *four* can be *catúr* in Sanskrit and *quatuor* in Latin and *fier* in German, has been explained under k-sounds. But the Greek *téttares*, four, may be termed a phonetic "sport" though *k* and *t* are sometimes interchangeable, regularly so, in Samoan and Awabakal.[3]

M and B.—Some philologists contend that *m* is a regular substitute for *b*, in natural course of phonetic change. This view finds corroboration in Tupi-Guarani, where *mb* and *mp* are common initial consonants as in *mboe*, to teach.

Arabic.—The *t* in such words as naka (t), she-camel, is in a "constructive position."

[1] For an interesting discussion of the forward movement of sounds, see Sweet, *History of Language*, p. 32.

[2] Olmos, *Grammar Nahuatl*, p. 197.

[3] See Sweet, *History of Language*, p. 29; also I. L. Threlkeld, *Grammar of Awabakal*, ed. John Fraser.

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Assimilated consonants.—Frequently a letter is assimilated with a following letter (*recessive* assimilation). This is especially true in Latin as scala, *scad-la; terra, *tersa. The same occurs in Mexican as can çe, caz çe; ma tiquin-xox, ma tiquix-xox, do not fascinate them. There is also *progressive* assimilation, as buddhá for budh-tá.

Accent.—The accent in Mexican usually falls on the penult. In vocatives on the ultimate, as totatziné, oh our father! But the shortening of words as used with possessive pronouns causes a stress which is not properly accent, as: calli, a house, nocalh, my house.

The saltillo, little leap, is a feature of Mexican pronunciation which appears to be aspiration. It is fully described by Chimalpopoca. Some authors say it is a pedantic nicety which may be ignored altogether.

Dialects.—In some instances Mexican seems to follow Sanskrit very closely as *kapi*, ape; Mexican, *quauh; cihuatl*, woman; Sanskrit, *çiva*. Again it seems to be nearer the Avestan. Thus *mauiço*, wise, great, learned, may be derived from *mag*, Sanskrit *maṅh*, by dropping *g* and filling its place with *u*, a common Indo-Iranian change. But this requires Aryan terminal *s* which is not Mexican. Or it may be derived from the same root following *Avestan* analogy where *g* becomes *s;* or Sanskrit *g* to *j*, Mexican, *ch* or *x;* thus mauiço = magian, by the change to *s* and the introduction of adventitious vowels.[1] A parallel case as to vowels is *kṛnóti;* Avestan, *kerenaoiti*. After the Avestan, Mexican *yauiz*-teca, to set up a shrine, *iyaua*, is from *yaj*, to worship; Greek, *ἁγιάζω*, to consecrate. The Hindustani word for *magi* is majus; for *magic*, *'azi-mat*-khwānī. The Mexican compound verb *azi-ca-mati*,[2]

[1] Whitney, *Sanskrit Grammar*, sec. 219; *Mexican in Aryan Phonology*, p. 10.

[2] *Azi* is phonetically serpent, *ahi*, "serpent wisdom;" cf. Zend, *Azhi dahâka*.

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means to be wise, to know perfectly. The identification of magian with mauiço thus seems to be indisputable.

These Indo-Iranian dialects seem to have run amuck in verbal forms. The Sanskrit for mongoose is *nakula*, the Panjâbi is *nēul*. The Sanskrit, *pácati*, means to cook; Avestan, *pacaiti;* New Persian, *pazad;* Afghan, *paxavaul;* Kurd, *patiń;*[1] Mexican, *pahua.*

The loss of a final *palatal* is pan-Aryan, as: Pali, manaṁ; Sanskrit, manak; Greek, *θυγ-ά-τηρ*; Sanskrit, duhitṛ; Mexican, tiuhtli; English, dauter, daughter.

Since the Nahua consisted of several tribes it is natural to suppose from these comparisons that they brought with them to the New World some of their peculiarities in dialect.[2]

Mexican phonetics are Spanish of the sixteenth century. The system is arbitrary, contradictory, and full of absurdities. The verb *qua*, eat, is also *cua* (Sanskrit, *gṛ*, gras? de-*vorare?*); *uei*, large, or *huei;* *Nauatl* or *Nahuatl.* The same word may be spelled with *ch*, *x*, *z*, or *s* at the caprice of each writer. The vowels *o* and *u* are often equivalents, as *teotl* or *teutl*, god.

For initial *s*, Mexican employs ç; as a rule for medial *s*, *z* is preferred, but a MS of 1607 everywhere employs *s*.[3] But Chimalpopoca (1879) employs initial *z* for *s* and discards ç entirely. In fact, the utmost confusion exists as to *s* and *h* and no writer seems to be uniform with himself. I may as well confess that I, too, have not been uniform, but not carelessly. I have often dropped *h*, which is a clumsy makeshift, and in such words as *uetzca* it is misleading to English readers who would pronounce the word *whetzca.*

[1] Gray, *Indo-Iranian Phonology.*

[2] *The Congress of Orientalists* announces (1908) the discovery of an extinct Aryan language in Chinese Turkestan which is said to be *western.*

[3] *Los Reyes*, Nahuatl text, miracle play of Tlatelulco, Chicago Public Library.

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CHAPTER XII

MEXICAN NOTATION.—The Five-Base—Chica ce, 6—Ten—The Fifteen-Base—System Aryan—"Hand Counting"—Antiquity.

The Mexican numeral system and the Aztec calendar[1] are of such importance that they deserve a thorough discussion but the subject can only be mentioned here. The Mexican cycle consisted of 52 years, and at the end of which occurred the ceremonial of "binding up the years," mo'lpilli in xiuitl. All fires were extinguished, the people rent their garments with lamentations and the sacred fire was rekindled on the breast of a living victim upon a mountain top. When the fire was rekindled[2] swift runners distributed it to the people of Anahuac and rejoicing succeeded the period of gloom. When the Spaniards landed in the country, they were surprised to find that the Aztec calendar was practically correct in actual date, while their own was several days behind time. The year contained 18 months of 20 days each, with a supplementary period of 5 days. Both days and months had specific names.

The method of counting was vigesimal, that is by 20s.[3] The names of the numerals up to fifteen are, in my opinion, pregnant with facts regarding the genesis of numeration. *Five*, *ten*, and *fifteen* have special names unlike those of the true Aryan system. They will be referred to later.

Tupi has a word which Ruiz de Montoya in his dictionary defines as "10 or 11." Çata, one hundred, in Sanskrit

[1] For the Aztec calendar see Prescott, *Conquest of Mexico;* Chimalpahin's *Annals*, Siméon's edition; for the names of the months, see *Metztli;* for the days, see Ihuitl in Siméon's *Nauatl-French Dictionary.*

[2] On Mt. *Uich*-ach-tecatl; "keeper of the light?" *Uich*=ἠώς, *eōs*-t-ra, Easter.

[3] The vigesimal system is still in use in Kâfiristan in the Hindu Kush region.

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also meant "a great many." From this it may be seen that the primitive counting was rather indefinite just as we yet say, "eight or ten" men.

The first great unit in Mexican notation is 20; the next 400, its square; the next 8,000, its cube. Twenty is called *cempoalli*, one score; 400, *centzontli*, meaning many, literally, "a head of hair;" 8,000 is called *xiquipilli*, a purse or bagful.

In counting, they add units to 10 as we do, but fifteen is a new base. Ten is matlactli; eleven, matlactli ce, "ten one"; sixteen is caxtolli ce, fifteen one; nineteen, caxtolli on naui, "fifteen on four." Once is *ceppa;* another time, *occeppa*. The system is capable of expressing complicated ideas which in English can only be explained at length. It is thoroughly worked out, is comprehensive, and an index of a high degree of civilization, such as the Aztecs possessed. The vigesimal system is also used by the Mayas of Yucatan and their calendar was the same as the Aztec.

THE NUMERALS (CARDINAL)

1. Ce
2. Ome
3. Ei, yei or e
4. Naui (nahui)
5. Macuilli (a hand)
6. Chica ce
7. Chicome
8. Chicuei
9. Chiucnaui or chicanaui
10. Matlactli ("both hands")
11. Matlactli oce (on ce)
15. Caxtolli
16. Caxtolli oce (on ce)
18. Coxtolli omey (on ei)
20. Cempoalli ("1 score")
21. Cempoalli on ce, or oce

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22. Cempoalli omome (on ome), etc.
30. Cempoalli on matlactli
34. Cempoalli on matlactli on naui
35. Cempoalli on caxtolli (20+15)
40. Ompoalli (ome poalli)
100. Macuilpoalli ("5 score")
250. Matlacpoalli ipan ompalli on matlactli[1]
400. Centzontli (a great bunch; a head of hair)
500. Centzontli ipan macuilpoalli (400 with "5 score")
1000. Ontzontli ipan macuilpoalli (2 tzontli with "ten score")
7000. Caxtoltzontli ihuan ontzontli ihuan matlacpoalli
8000. Cenxiquipilli (one "purse" bag. Cen=ce)

Macuilli, five means simply a "hand" or "hand-grasp."

Chica, in chica ce, six, etc., is Sanskrit *adhika*, plus.

Matlactli, ten, is the torso or both hands (half the body).

Naui, four, may mean a man, "hands and feet," but any positive opinion here involves the differentiation of Mexican *chica naui*, nine, and Sanskrit *nava*, nine, which may or may not be related. (See "hand counting.")

Ten.—The fact that Mexican differs from other Aryan languages in its word for ten may throw some light on our *deka*, English *ten*. In Mexican, mo-teca simply means "they assemble," hence deka may originally have meant merely a "gathering," like our expression "ten or twelve" [persons].

Caxtolli, fifteen, I should derive from Sanskrit, *kas*, to move, or *çaç*, renewing, plus *tula*, balance, weight; Greek, *τάλαντον*.

Xiquipilli means a purse or haversack. This might indicate perhaps that the people who originated the word were once accustomed to having large sums of money though

[1] There is some latitude in the use of *ipan* and *on*. In general, ipan is used above one hundred; also in the use of *ihuan*. Chimalpahin says macuilpoal xiuitl ipan ce xiuitl, 101 years, also mactlactli ihuan ome xiuitl, 12 years.

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the Mexicans used it in reckoning bags of cacao beans. Compare a *lac* of rupees as used in modern India.

Plurals.—The numerals have plural forms as: ome, omentin; ei, eintin, etc.

ORDINAL NUMBERS

Chapter I, ic ce quaitl.
Chapter, XVI, ic caxtolonce quaitl.
Chapter XXI, ic cempoalli ihuan ce quaitl.
One time, ceppa.
Two times, oppa.
Three times, expa.
Four times, nauhpa.[1]
Five times, macuilpa.
Six times, chicaceppa.
Seven times, chicoppa.
Eight times, chicuexpa.
Nine times, chicunauhpa.[1]
Ten times, matlacpa.
Ordinals may be read with *can*, as *excan*, "by threes," three in a bunch; also with *oc*, *occe*, another; *ocome*, two others.
The first time, ic ceppa.
The second time, ic ompa, etc.

Ce.—Ce and centzontli deserve a passing notice. *Ce*, Sanskrit *sa*, Latin *as*, denotes the idea of unity. The original meaning, however, appears to have been either one thing or a number of things taken as a unit. The latter sense may serve to explain the difference between the 100-unit of the other Aryans and the 400-unit of the Mexican system. The Latin *cent*-um is one hundred, but the Mexican *tzont*-li is four hundred. From this it appears that *ce* originally referred to the aggregate as a unit and not to the number of individual units forming it, considered as to their number. But it is not certain that *tzontli* can be referred to *cent*-um (see p. 48).

[1] The *h* in words spelled like nauhpa indicates merely a hiatus as "na-oo-pa," „not now-pa."

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Ome, two, may, I think, fairly be considered as the sacred syllable *om*. In Panjâbi, *ikokar*, ik-*om*-kar, means naming the trinity, i. e., doing "the one *two* three" but three is omitted.

Nine is chiuchnaui or *chica naui*, chica "plus," Sanskrit, *adhika*, indicating increments added between 5 and 10.

It will be observed that I have identified as Aryan, 1, 2, 6 to 9, 15, 20, with 100 doubtful. I have not been able to ascertain the relationship existing between Mexican 4, *naui*,[1] and Sanskrit, 9, *nâva*.

POSSIBILITIES OF MEXICAN NUMERATION

The word *matlactli*, ten, affords a good example of the capacity of the Mexican for varied expression. *Tlamantli* or *Centlamantli* is in general, thing, object.[2]

Matlactlamantli, 10 objects.
Im matlactlamantli, centlamantli, 10 objects in one, "a ten."
Im matlactlamanixtin (plural of above), all the ten objects, all the tens.
Matlacpa, ten times.
Oc matlacpa, ten more times.
Matlacpa matlactli, 10 times 10.
Matlacpa ixquich, 10 times as much.
Matlacpa omome or omoppa, 12 times.
Im matlactli ce, 10 in one.
Matlaccan, in 10 places.[3]
Ic matlactlamantli, 10th object.
Inic matlactlamantli, the 10th object, or a tenth part.
Matlatlactli (reduplication), by tens.

[1] *Four* was a sacred syllable in magic, to which the Aztecs were greatly addicted. For the sacred syllable "om," see Elphinstone, *History of India*, Vol. I, Bk. I, chap. ix.

[2] Sanskrit, *mantra*, any utterance of a priest, during devotion, which he enumerated as a part of his supposed inspiration, or incantation.

[3] Siméon renders *matlaccan*, "dix parties," ten parts, also "dix endroits," ten places. *Can* is a locative of place, ordinarily, as qualc*an*, a good place.

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Hand counting.—An excellent account of the origin of numeration and "hand counting" is given by E. B. Tylor in *Primitive Culture.* I shall give a few of his salient facts here condensed and in my own phrasing. The Tonga Islanders have native numerals up to 100,000 (Vol I, p. 241). Finger methods vary. In Tamanac, of South America (quoting Father Gilig), 5="whole hand;" 6="one on the other hand;" 10="both hands;" 11=stretch out both hands and say: "one on the foot;" 16="one on the other foot;" 20="tevin itòto," "one indian;" 21="one to the hands of the other indian;" 40="two indians."

Per contra in Juri "a man" is only 5.

"Zulu is perhaps surpassed by no language in finger counting." They begin in general with the little finger of the left hand, then the thumb makes a "finish hand;" the right thumb becomes six; the right index finger is seven and the word used is *komba*, to point.

Tylor (quoting Dr. Wilson) continues: "The *dual number* preserves to us that stage of thought when all beyond *two* was an indefinite number."

The natives of the Island of Futuna, New Hebrides, have numerals to 4 inclusive; 5 is "my hand;" 6, "my hand and one;" 10, "both hands;" then on toes up to 20; above 20, "very many." This is the simplest system.[1]

Does enumeration throw any light upon the relative antiquity of Indian tribes?

One of the first things which primitive man learned must have been to count in some fashion, however crude. The Tupi Indians of South America have distinct names for the numerals, only from *one* to *four* inclusive. When we compare this meager result with the highly developed system of the Nauatlaca the contrast is very striking. The

[1] W. G. Fitz-Gerald, *Harper's Magazine*, October, 1907.

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Mosquito Indians have an elaborated system wholly different from the Aztec. The Algonquin system apparently has no relation to any of these, unless it be that the Delaware, newo, newa, *four*, be the Mexican naui, four. The system appears to be concise and sufficient. The Tupis appear to have been wholly ignorant of hand counting, which the other peoples mentioned all have. Why this great difference in the numeral systems of inhabitants of the same continent? What is the signification? It seems to argue that these tribes have been isolated for very long periods and separated before the very beginnings of anything like culture.

Some, however, believe that the origin of counting is to be found in purely mental concepts which involve ideas of *Cosmogony*. For example, if the ego be considered as a center there at once arises the idea of the *four quarters* of the earth with reference to this center, also the idea of an upper world (zenith) and an under world (nadir).[1]

[1] See W. J. McGee, "Primitive Numbers," *Smithsonian Report*, 1897-98, Part I, p. 834. This is, of course, pure philosophizing, hence neither susceptible of proof nor to be contradicted.

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CHAPTER XIII

History and Geography of the Mexican Language—Tribes—Native Records and Historians—Ruins—Population.

[*Introductory Note.*—Chaps. xiii, xiv, and xv were written before I had determined positively that the Nauatlaca[1] are Indo-Iranians. I tried to give a fair résumé of their fragmentary, mingled history and tradition and naturally I ventured on some speculation of my own. I have concluded to let this part stand as originally written because it is a fair statement in brief compass of the difficulties of the case and it presents a few opinions of various writers with my own tentative suggestions. With one year's further successful investigation, I have proceeded to give, in chap. xvi, what I finally believe to be a clear and conclusive exposition of the Aztlan legend and have identified some of the places named in it.]

Tribes.—There was a mingling of tribes on the plateau of central Mexico, and much speculation has been indulged as to their origin and relationship. There were Toltecs, Chichimecs, Chalcas, Tlacochcalcas, Mexicans, Acolhuas, and others. It is to be remembered that the best-known name of all, *Azteca* or Mexica, was unimportant in the early days. But finally the Mexica obtained the mastery over the other tribes and subdued numerous "kings." But these kings, like those overthrown by Joshua, were really petty rulers, "lords rich in a dozen paltry villages." From the time of Axayacatl to the conquest, the rulers of Mexico were really worthy the name king, though they styled themselves simply "tlatoani," "he who commands," literally, who speaks. Their courts were splendid and refined, with incomprehensible aspects of barbarism. The

[1] Nauatlaca is a compound of *Nauatl*, a language, and *tlacatl*, man, the whole meaning the people who speak *Nauatl*.

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great Axayacatl himself once deigned to take part in a dance, clad in a gorgeous flowing robe of feather work which was open at the sides sufficiently to give glimpses of his fine figure and coppery skin. Some incidents of this great festal occasion, half ball, half religious ceremonial, strikingly illustrate the absolute power of this monarch who was satisfied to style himself "he who commands." The chiefs of the Tlacochcalca had come, bringing with them the great musician who was expected to conduct the ceremonies. But somehow he bungled things, when a young musician who was present volunteered and saved the day. He won such applause that the great Axayacatl himself deigned to emerge from the seclusion of his women, in the royal gallery, and indulge in a *pas seul* to the edification of his people. Because of their failure, the leading men of the Tlacochcalca expected nothing less than the fall of a few heads to placate displeased royalty. But the king was in a merry mood, and heaping gifts on his new favorite, overlooked the failure of the old. This incident suggests the arbitrary acts of oriental despots and especially those of the kings of Persia.[1]

To illustrate the smallness of these "kingdoms," Tezcoco which was the Athens of Nauatlaca culture, is only about thirty miles from Mexico. But all these tribes (some say seven) spoke the same language, Nauatl or Mexican. This fact makes their tribal names seem still more obscure. From what central seat did these successive migrations emanate? And what became of the parent stock? Its extinction implies a great antiquity and perhaps a great national calamity. But the Toltecs appeared on the plains of Anahuac only about 1,200 years ago according to (alleged) authentic data. These Nauatlaca, Nauatl men,

[1] *Annals of Chimalpahin*, year 1479.

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regardless of tribal relation have been called "Nahua," "Nuhua," or "Noa." They have once been in close touch with the Hindus, the Assyrians, and the Accadians.

Ruins.—The great pyramid,.teocalli, of Cholula incontestably suggests Babylonia.[1] I visited Cholula in the year 1891 and was filled with wonder at its vast dimensions which clearly establish the existence of a dense population and such a work implies an organized community long settled in one place. Twenty-seven miles northeast of the City of Mexico, at *Teotihuacan*, the sacred city of the Toltecs, are the pyramids of the sun and the moon. The pyramid of the sun is over 200 feet in height. These pyramids are like the pyramid of Cheops in form, while Cholula is terraced. A descending tunnel leads to the interior. Here, according to Sahagun, tradition says that Tecuiztecatl, god of the sun, and Nanauatzin, god of the moon, once tarried four days. According to Dr. Karl Sapper, houses at Tonina, state of Chiapas, are built with walls sloping inward exactly like the great pylons of Egypt and the pigeon houses of that country today. There is an H-shaped court at El Sacramento and the substructure of the great inclosure at Baalbec is H-shaped. The ground-plans of a house at Ticul greatly resemble the plans of the temple of Denderah. The exterior of Denderah, as well as the interior, is covered with sculptures as are the exteriors of Peten, Palenque, and Uxmal. To my mind, these facts, taken together, point significantly to some former intimate connection between the people of the Old World and the New, the indications being that this connection, so far as the Nauatlaca were concerned, existed after civilization had made a considerable advancement.

[1] The pyramid covers more than 44 acres. It is larger than the pyramid of Cheops. Humboldt also remarks the resemblance of Cholula to the temple of Bel or Belus. *Researches*, Vol. I, p. 98.

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I quote the following from Dr. Cyrus Thomas. Referring to the slight progress made in deciphering these records, he says:

> We might hope that further research will prove that this has some relation to Maya history, were it not that the beginning was placed about 4,000 years prior to the time when the inscriptions were made, a date so remote as to preclude the supposition that it related to any noted event in the history of the tribes.[1]

Chimalpahin begins his *Annals*, *seventh* relation, with the dispersion of men at the tower of Babel. But his *second* relation begins with the year 50 A. D. Perhaps after all he did not get his authority for his pre-American history, entirely from Christian sources. (See notes p. 126.) There is a tradition that an Aztec king, long ago, ordered all the records of his people to be burned. Chimalpahin and Ixtlilxochitl were both Indian historians who wrote in the Nauatl language. Both could read the old picture writings and both refer to records now lost, which they understood perfectly, in such a manner as to leave no doubt of the truth and accuracy of their statements regarding these documents.

While the Maya language appears to be distinct, according to philologists, from the Mexican, and the Maya culture apparently older than that of the Nauatlaca, all indications point to a common origin for both, Asia. It may not be going too far to assert the same of the civilization of Peru. It is almost certain that the deciphering of the Mexican and Mayan hieroglyphics would add little to *authentic* history but out of much priestly rubbish and records of world-old myths there could unquestionably be gleaned *facts* which would throw a flood of light upon ethnology, archaeology and mythology.

[1] *Smithsonian Document*, No. 1532, "Central American Hieroglyphic Writing."

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The geographical extension of the Nauatlaca and the Mexican language was very considerable, though not equaling that of Algonquin, Tupi, or Quichua. The language extended from the state of Sinaloa in northwest Mexico on the Pacific, obliquely across the continent, to the Mayas of Yucatan on the Gulf of Mexico, a distance of nearly 1,500 miles. It reached down the Pacific coast farther south into Nicaragua, 2,000 miles, where it is now extinct. It ruled supreme on the table-lands of Anahuac, except that an enclave of Otomi ran down from the north nearly to the City of Mexico. Mexican was the Latin or *lingua franca* of nearly all Mexico. Tribes who did not speak Mexican always understood more or less of it. Its only real rivals in southern North America were the Maya and the Quiché of Yucatan.[1]

Population.—At the time of the conquest, 1520, the language was spoken by several millions of people, probably five millions at least. Tenochtitlan or Mexico was a great capital, a modern Venice, possibly equaling in size the present Venice of the Adriatic. Cholula had 200,000 inhabitants. Humboldt thought the numbers of the Indians to be exaggerated by the Spanish conquistadors. Tylor, on the other hand, says the temperate region shows evidences of a former population perhaps ten times that of the present.[2] Cortez wrote to the emperor Charles V that from the top of one tower at Cholula he had counted more than 400 other similar towers.[3] Some temples had *two* towers, others only *one*. Some of the Spanish con-

[1] Mexican is still spoken extensively in the states of Vera Cruz, Puebla, Tlaxcala, Mexico, Guerrero, Michoacan, Jalisco, Sinaloa, Oaxaca, Tabasco, Tehuantepec, San Luis, Colima, Zacatecas, Durango. Francisco Pimentel, *Lenguas Indígenas de Mexico*, Vol. I, p. 158. [About 1,750,000 people spoke Mexican in 1862.]

[2] E. B. Tylor, *Anahuac*.

[3] Clavijero, *History of Mexico*, Vol. II, p. 23, note.

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quistadors estimated the population of the City of Mexico at 60,000; others say 60,000 *houses*. My own opinion, based partially on personal observation of the stupendous ruins of the country, inclines to the latter estimate, since the pyramid of Cholula, as just stated, covers 44 acres. Is it not more reasonable then to accept the estimate of 200,000 inhabitants rather than the absurdly low estimate of 30,000?

Tezcoco was an elegant capital where the Nauatl language was spoken in its pristine purity. There the poet king Nezahualcoyotl[1] held his court and wrote his poems. He also constructed a great aqueduct to furnish his capital with pure water. This is no exaggerated picture; the testimony of the conquistadors may be adduced in confirmation. These men, many of whom had been soldiers of fortune and had visited most of the capitals of Europe, were struck with astonishment at what they saw on entering the City of Mexico. Some of these adventurers declared that in all Europe, Constantinople not excepted, they had never seen a finer appointed and busier market-place than that of Tenochtitlan, the doomed capital of the ill-fated Empire of the Aztecs.

[1] Nezahualcoyotl, "fasting coyote," or "hungry wolf," (canis latrans).

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CHAPTER XIV

ORIGIN OF THE NAUATLACA.—Evidence from Language—Uitzilopochtli—Possible Assyrian Affinities—The Deluge—Pre-Columbian Discoveries.

The various tribes which invaded Anahuac from time to time, in successive migrations, all appeared to be of one stock and all spoke Nauatl, though the word Nauatlaca was never used by these people in speaking of themselves, in so far as I can discover. Their story is interesting even if nothing is definitely fixed as to localities. But first let us continue with the evidence of language a little longer because that is more certain.[1]

Uitzilopochtli.—Teçoçomoc, says Uitzilton, "Little Humming Bird," was born 1091 A. D. He was apotheosized as Uitzilopochtli. It is asserted that he led the Aztec "migration," 1064?–1087, twenty-three years, from the departure from Aztlan to the landing at Tlalixco. But apparently he was not born till after the "migration" had ended. Clavijero says, in spite of Chimalpahin's assertion that the chief's name was *Uitzilton*, that Boturini made a mistake in the word because he did not understand Mexican.[2] But Chimalpahin wrote several books in Mexican. Furthermore, Clavijero gives a succinct account of the miraculous conception and terrible events attending the birth of Uitzilopochtli at Coatepec near Tula. Sahagun

[1] According to A. von Humboldt, Professor Vater and Dr. Barton, of Philadelphia, recognized in eighty-three American languages, only one hundred and thirty-seven roots common to both hemispheres or one and two-thirds words to a language. Such results are practically *nil*. I conclude that the examination must have been one of those which may be classed as "unscientific." A. von Humboldt, *Researches concerning the Institutions and Monuments of the Ancient Inhabitants of America*, Vol. II.

[2] Clavijero, *History of Mexico*, Vol. II.

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spells the name Vicilupuchtli and remarks: "fué otro Hercules," he was another Hercules.

Let us analyze Uitzilopochtli. *Uitzilin*, is derived from Sanskrit, *vi*, bird+*svar*, to hum, English, swarm (as bees).[1] What then does *opochtli* mean? This question at once involves mythology but it pertains to etymology as well. The Indian definition of opochtli is left hand (side). Why was his *left* foot adorned with humming-bird feathers rather than the right foot, or both feet? The Greeks considered the left hand unlucky, hence always referred to it as the "well omened," εὐώνυμος, by way of euphemism, and to break the spell of bad luck. Even today we all have heard that it is bad luck to see the new moon, for the first time, over the left shoulder.[2] Though moon worship was general the Aryans assigned the planet a specific bearing on the question of good or bad luck. This would appear then to be a very widespread Old Aryan superstition, if found in Europe, Asia, and America. The Romans alone of Aryan peoples did not hold the left hand to be unlucky. Hence is it not reasonable to suppose that the Mexicans decorated the *left* leg of their god for the same reason which prevailed among the Greeks, that is, because the left side was unlucky? The word *opochtli* in itself does not mean left at all, but on the contrary something *good*, the meaning *left* being apparently an extension. The Sanskrit root *bhaj*, means to divide, deal out, and to give a part or get a part; *bhaga*, a derivative noun, means he who deals out, master, lord, also an epithet of Savitar, an exalted god of the Hindu pantheon. In Old Persian *Baga* was God; in Russian

[1] *Mexican in Aryan Phonology*, p. 9.

[2] This "left hand" superstition is not to be confused with the obscene "left-hand" rites to the goddess Kali described by Jastrow, *Religions of India*, p. 491. "Right and left" had originally nothing to do with the *cardinal points*.

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Bog. Hence we see that the Mexican o-*poch*-tli does not stand alone in representing an Aryan deity. *Bhag-a-vant* was fortunate, blessed, *bhagin*, happy; *bhaginī*, a sister, "the happy one." This last use also occurs in the Mexican, ich-*poch*-tli being a girl, tel-*poch*-tli, a boy. The initial *o* is merely prosthetic. Does it not follow clearly that *Uitzilopochtli* as a deity is surely Aryan and cognate with the modern Russian name for God, Bog, and the ancient Iranian Baga?

But it may be asked why was so tiny a creature as the humming-bird selected as the attendant of so terrible a god? The answer is hidden in the impenetrable mists of mythology. Suffice it to say that it was a universal Aryan custom to assign various animals as attendants (simulacra?) or even as guides to gods and demi-gods. Witness the owl of Pallas, the garuda of Vishnu, the mouse of Apollo and the woodpecker and wolf of the Italians. The unknown god who appeared to the Inca (Falb, *Land of the Inca*) was accompanied by a black dog.

The Algonquin Manabozho is doubtless *opochtli*. Manabozho was a sort of protean deity who assumed various forms, sometimes grotesque. Ordinarily he was called the Great Hare. His father was the west wind, his mother granddaughter of the moon (see "Climate," p. 135). In Natick, Nanepaushadt is moon or moon-god. In Scotland the *west wind* is associated with the moon-myth. Manabozho recreated the world after the deluge.[1]

Besides the name *bozho* an additional link connects

[1] See Parkman, Introduction to *Jesuits in North America*. In spite of his absurd attributes he was considered chief of all the Manitous, a position according well with Savitri-Baga-Uitzilopochtli. He also granted the Indians immortality, but a curious squaw opened the packet and the gift escaped. Here is a legend evidently parallel to the myth of Pandora's box; *Bureau of Ethnology Report for 1890-91*, Menominee Vocabulary: Mānābūsha=mūshá, great + wabús, rabbit, *sic!*

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this god with the Hindu pantheon. He was called the Great Hare and was a descendant of the moon. The Hindus see a hare or a gazelle in the moon instead of a man, but the Tartars also reverenced the moon.[1]

Even the Spaniards appeared affected by the humming-bird myth since it is related (Chimalpahin, *Annals*, year 1531) that a humming-bird attended Friar Martin de Valencia in his solitary meditations and prayers.

The name for woman in Mexican is cihuatl. In Tupi it is simply *ci*, mother. The Sanskrit çiva is the phonetic equivalent of these words. It means kind, gracious, lovely. The horrible god Çiva (Siva) "the gracious one," is one of the Hindu trinity to this day, and his name is also a euphemism. A few words more as to *Tetzauitl* which was an appellation of Uitzilopochtli.[2] A celestial phenomenon, *tetzauitl*, "terrible thing," in the year 1509, excited terror among the Mexicans. It was a great light in the heavens which appeared nightly for months. From Chimalpahin's description it is hard to believe it a comet. *Tetzauitl* as an appellation of Uitzilopochtli plainly marks him as a devil-god. I derive it from Sanskrit, dasá, evil demon + *vid*, to know, a seer; Icelandic, vit-ki; English, witch; Anglo-Saxon, wicca. Tetzauitl stands for the evil side of Uitzilopochtli. Will any one claim that these references, analogies and derivations, are unscientific or mere coincidences? But there is more.

[1] Carpini, *Dawn of Modern Geography*, Vol. III, p. 284. The same may be said of the Hottentots and other tribes, *Cyclopedia of Superstitions*.

[2] See "Nauauatzin," *Mexican in Aryan Phonology*, p. 13, and "deities," p. 161, *infra*.

Much futile and some absurd speculation has been indulged in by writers on the subject Mexican mythology. Uitzilopochtli has been considered as a personification of the powers of nature and the word uitzilin even applied to the whisperings of an oracle. The Michoacan legend says Tezpi (Noah) sent out *uitzilin* to explore the waters. An extended account of Uitzilopochtli may be found in Kingsborough's *Mexican Antiquities*, Vol. VII, Book III, pp. 103 ff.; also *Native Races of the Pacific Coast*.

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The Assyrian Bel, Hebrew Baal, was one of the most puissant gods of western Asia. He was supreme at Babylon, Baalbec, Carthage and elsewhere. Without going into the origin of his name, it is possibly connected with the Sanskrit verb *pālaya*, to protect, because *bel* also meant a secular lord, a feudal protector. The Mexicans also have the phrase, *ipal nemoani*, *Nebo-Ana? *nembo-ana? for God, that is, "He who walks with the living" or "Him through whom men live." Ipal, "his pal," in this case evidently means protector. But I should add that the connection between Mexican and Assyrian in this case is only in the phase of suggestion.

Altepetl means town, in Mexican. *Al* is separable, tepetl means hill or mountain, as in "popocatepetl," "the mountain smokes." In the Assyrian cuneiform writings *alu* was always placed as a catch word before sentences describing or referring to cities.

In Mexican, *calli* is house, or a public building; chantli, is a dwelling; ekalli in Assyrian is palace (c = k). Kal'a was a Sassanian palace. Nacatl is *meat* in Mexican; in Egypt (where camel's flesh is eaten) it means she-camel.

The Deluge.—Noah (Noakh) in Hebrew is defined *rest.* In the opinion of some critics it really is the name of a people instead of a man. Oppert believes *Noah* to be *anu*, a god; and *Abel* to be *abilu*, son. The Semites called the Accadians *adamatu*, "red race," and it seems to be agreed upon that Adam was a *red man.* The *Nahua*, or *Noa*, were one of the tribes of the Nauatlaca. *Noakhali* is a district of Bengal.[1]

[1] These references to Semitic culture were written at the time when I believed the Mexicans to be closely associated with the Semites. They are allowed to stand here for what they may be worth, if anything. They are not wholly valueless because it is certain that the ancient Aryans were at various times in contact

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The Mexicans, like all nations, had a tradition of the deluge. *Coxcox* was their Noah and eight people were saved in an ark called *tlaptli petlacalli.* In an Aztec painting he is represented as floating on a log on the waste of waters. This phrase is not easily explained. It is easy to get the modern Indian significations, but what were the original meanings? It must be remembered that Mexican is a non-literary language and for lack of continuous history of words, only comparative philology will help us out. *Tlaptli* means a coffer, and *petlacalli*, literally, "a mat-house," that is, not made of mats but made like a mat, probably of wicker or woven fabric. It would seem, at first glance, as rather a childish conception, that of an ark made of mats or wicker work. But on the authority of Dr. Peters, who conducted the explorations in Babylonia, for the University of Pennsylvania, boats are made there today precisely in that fashion. A framework of wattles, interwoven, is thickly covered with pitch, and such a boat will support a team of horses. If the Mexicans ever used *petra* for stone, of which I have no evidence, then *petlacalli* would mean stone or pitch (?) house.

Tlaptli, a coffer, may possibly be derived from the Sanskrit root trp, to sustain, nourish. This meaning, the ark would satisfy. Petlatl (in petlacalli) may also be explained figuratively. In Mexican court language, "icpalli ihuan petlatl," "seat and mat" were symbols of authority. Hence the whole phrase "tlaptli petlacalli" might mean something like this: "the ruler's or patriarch's house which sustained us." Nothing in the phrase even hints at boat. The Mexican name for boat is *acalli*, "water-house." It is further to be remarked that the ark of the

with Semites and Turanians. Even today an Afghan tribe claims Hebrew descent. A very different derivation is given for Nahua in *Mexican in Aryan Phonology*, p. 12.

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covenant was really a coffer, and until lately a meal chest was called an *ark* in the north of England.[1] [A better derivation of *tlaptli* is tṛ + ap = "across the waters."]

Like the Babylonians, the Nauatlaca recognized the male and female principle in their deity, as is clearly shown in the following quotation from Chimalpahin's *Annals*, year 1519. "Auh in aquin oquiçaco in teotl, in tonantiz, in totatiz." But he who has come [Cortez] is god, our mother, our father. The female in such cases is always mentioned first.

What then is the purport of all these references to Hindus,[2] Assyrians, and Hebrews? That the Nauatlaca are descended from all of them jointly? By no means, but it is evident that these red immigrants to America were once in close touch with the ancestors of all these nations. Indications point to the highlands of western Asia, the country of the Elamites, as the original seat of the Nauatlaca. *Elam* is given as Hebrew for Aryan. A grammatical expression, "in Susinak," identical with

[1] Pushita is the Indian name of a township in Auglaize County, Ohio. Compare it with Pushan a Vedic deity or with Uitzil-o-*poch*-tli. Illinois is the French rendering of Illini, an Indian appellation in the Delaware, *inini*, men. It violates no law of phonetics or historical probability to derive illini (inini) from ilu, Assyrian, a god (plural, ilani). And here we are brought face to face with the fact that all the ancient peoples believed that they were a "chosen people," or in some measure under divine protection, and many tribes claimed divine ancestry. This reduces the Hebrew claim "Chosen People," to an insignificant historical incident. But a derivation of Illini directly from *Iran* is better. Compare *Eirin*, Erin, Ireland.

The swastika, 卐, a mysterious symbol, belts the earth by way of Java, Egypt, Spain, and Arizona. It is generally supposed to be a religious symbol, but Falb (*Land of the Inca*) thinks it represents the ancient hand mills. The name is Sanskrit, meaning "well-being," or simply "good luck." The swastika has lately been found at Moundville, Ala., U. S. A. Mr. Wardle (*Harper's Magazine*, January, 1906) who conducted the explorations, calls it merely a sign of the cardinal points. The vase in question carries the form ✢.

[2] The marriage customs of the Aztecs greatly resembled those of the Hindus, Prescott, *Conquest of Mexico*, Appendix. For superstitions see Elphinstone, *History of India*, Vol. I, Bk. I, chap. iv, p. 76.

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modern Mexican syntax, occurs in an inscription of the Elamites, 1200 B. C., according to a translation by Jacques de Morgan. The country of the Mekhirani was overrun and devastated by Ezar Hadon 681 B. C.

The Mexican termination, "catl" (Sanskrit, çatru or çattru?) as in Aztecatl, may sometimes possibly mean "lord of" and may be *Katur*, of which *Chedor* is the Hebrew equivalent according to Sayce,[1] and Chedor-Laomer (Lagomer) was one of the kings mentioned in Genesis (14:9).[2] Katur-*Mabug* resembles the name of the Mexican official tla-*maocatl* = *Mabug*-a-tl. Everything discoverable in the Mexican language then points to the fact that it must be of extreme antiquity.

Pre-Columbian discoveries.—I may as well refer to "pre-Columbian Discoveries" of America, though the subject seldom touches upon philology, and has only a remote bearing here. Only one of these discoveries, in so far as I am aware, has any philological bearing on the *origin* of any tribe of Indians, and that is told in the story of Madoc or Madog, a Welsh prince who is said to have sailed westward from his native country early in the eleventh century and never returned. From this fact, if it be a fact, has sprung some Welsh myths connected with the Indians of North America. In "Lives of Famous Indian Chiefs" (quoted from Baldwin, *Ancient America*) may be found a remarkable affidavit by the Reverend Morgan Jones who "certifies" that he was wrecked in the year 1660 at Port Royal [S. C.] where he held conversation with the Tuscarora Indians in British (Welsh), and "did preach to them

[1] A. H. Sayce, *Higher Criticism and the Monuments*, p. 164.

[2] I have not been able to determine "catl" as a separable affix nor to connect Mekhirani with the puzzling word Mexica. The same applies to "otl" as an abstract termination. The word *Katur*, Katir, is still in use in Kafiristan with a doubtful meaning, probably a horseman or *lord*.

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three times a week." George Catlin also tells a somewhat similar story of the language of the Mandans,[1] and although he asserts that the Mandans are *extinct*, contrary to the fact, he tells the story of their tragic end with such circumstantial detail that I think there must be some confusion of names as to the tribe in question.

[1] Norman Wood, *Lives of Famous Indian Chiefs*, Aurora, Ill. Catlin, *Indians of North America*, p. 759. Catlin's list of words will not bear scientific scrutiny. The affidavit of Rev. Morgan Jones I leave to the individual opinions of my readers. This matter is discussed fully by Bancroft, *Native Races of the Pacific Coast*.

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CHAPTER XV

ORIGIN OF THE NAUATLACA.—Historical Evidences—The Migration—"Chichi"—"Tlacochcalca"—Meaning of Aztec—The Aztlan Myth.

Tribes.—It now remains to set down the little that is known about the wanderings of the people of Anahuac. All the writers tell us that there were *three* important tribes who successively arrived at the Mexican lakes. First came the Toltecs, "architects," who were supposed to have been artisans. Some derive the name from tollin, a reed, a rush(?), some from Tollan-Aztlan. They were builders of fixed habitations. Next were the Chichimecs, who were supposed to have been a pastoral people because the name is defined "he who sucks."[1] Lastly came the Aztecs. Why were they not called the "bronze workers," from *aes*, copper, *asi*, *ensis*, a sword, and "*tecatl*," master of? In fact, Quetzalcoatl, "the fair god," is said to have taught them the art of casting metals.[2] He was also a law-giver and instituted the book of martyrology. All these people came from Aztlan in the north.

The Sanskrit must usually be given first place in things Mexican and *as* means (1) to be, to exist, asura, a god; (2) to shoot, to dart; and from this last we may get the idea copper, if lances were tipped with bronze. But if we take *as*, (1) then we may get *as-ura*, the gods, and

[1] See discussion of *Chichimecatl*, p. 39, note.

[2] Quetzalcoatl = quetzalli, a plume + coatl, a serpent, hence "plumed serpent." *Hoa* was the Babylonian serpent god, the serpent of the garden of Eden, no doubt (Rawlinson). *Hoa* may be the equivalent of the Mexican *coa*. Hoa was *not* originally an *evil* personification. Since *coatl* is derived from Sanskrit *çubh* it would be necessary to show a corresponding phonetic change in Assyrian, or a direct borrowing on one side or the other.

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Aztlan may become "the land of the gods," Germanic *aes*-ir; Irish, *ais*-sidhe, "god land;" possibly a land specially ruled or favored by the gods as was ancient Palestine in the estimation of the Hebrews. This second view is very probable. The Nauatlaca, especially the Mexicans, were eminently religious, as is evidenced by their turning back to their own country to worship. The Mexicans had an important official called *Teohuateuctli*, a word which means "near to, or guardian of, sacred things." Doubtless he was a sort of *pontifex maximus* or high-priest.

Chichi is defined by the lexicographers, Molina and Siméon, as dog, and mecatl is a whip, a cord. This would give us "dog whip;" and Chichimeca, "masters of dogs," but also interpreted, no doubt falsely, simply "dogs" and suggesting a people who may once have sledged with dogs in the far north. This would also suggest that the Chichimecs came to America overland by way of Alaska.[1] In the face of this, is the definition, "one who sucks," but Sanskrit *dhī*, means also pious, and *dhṛ*, chi, means bear (stout), *θρό-νος*, hence I do not advance the dog-sledge view as a hypothesis, but merely as a suggestion, and to illustrate the difficulties which surround this subject. But these few lines of speculation are perhaps more than sufficient. The Chichimecs were supposed to have left Aztlan, in the north somewhere, about the year 50 A. D.[2]

The northern tribes around Puget Sound, the Shoshónes, and farther south the Utes and the Moquis have

[1] Chichi means breasts, hence milk, in Japanese, also father; it is derived from Sanskrit, dhī, to suck, but *dhī* also means devotion. Hence this word applied to the Chichimeca, "dogs," in derision was accepted by them as a term of honor. See p. 39, note.

[2] An important date is 1091 A. D., when they "reformed" the calendar. But according to Veytia an earlier "reform" took place at a meeting of Toltec astronomers, 134 B. C., in Ueuetlapallan (Balkh?).

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been classed as the Uto-Aztecan stock. In 47 Shóshone words I found 21 apparently akin to Nauatl.

The Toltecs, says Clavijero (Vol. I, p. 112), began their migration 596 A. D. and traveled, always southward, for one hundred and four years. Their arrival at Tula (Mexico) was about 690? A. D. According to this account Aztlan could have been a country situated at an immense distance. It is supposed that all these tribes came from Aztlan. But Teçoçomoc says the Aztecs required only twenty-three years for the migration.

Chimalpahin Quauhtlehuanitzin, a descendant of Indian kings, was born 1579. He was near enough to the conquest, beyond doubt, to have access to Aztec documents now lost which he could decipher. The traditions of the Aztec empire still lived in his time. He is a careful, trustworthy writer, and his *Annals* have been called *the* Mexican classic. I shall follow him a little farther.

In places, Chimalpahin is vague, owing as he frankly confesses, to the fact that he did not know what the exact facts were. His pages teem with names of tribes and places, long bizarre names which, to anyone who does not understand Mexican, seem hopelessly barbáric. It would be useless to try to follow him far in one short chapter, but the leading facts may readily be culled from among the minor details. I will quote the opening sentence of Chimalpahin's "Sixth Relation." To understand the date, an understanding of the Mexican calendar is necessary.[1]

XIII Tochtli Xiuitl, 1258 Años—Inic ualquizque in Xicco in Chichimeca in intlan Chalca in oncan catca XVIII xiuitl, in atenco cenca quipopouhtinenca, inic Chichimeca in tlein quichiuaya quimilhuiya Atempaneca.

[1] For calendar see Prescott, *Conquest of Mexico*, Vol. I, chap. i; Introduction to Chimalpahin's *Annals*, ed. Siméon; and Veytia, *Calendarios Mexicanos*, Pub. Muséo Nacional de Mexico, 1907.

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Translation.

XIII year rabbit, 1258 A. D.—Then the Chichimecs repaired to Xicco where had dwelt the Chalcas for eighteen years, occupying themselves with the art of divination (?) by the water side, for which reason the Chichimecs called them Atempaneca.

The year 1258 A. D. is then Chimalpahin's first definite date in his very brief "Sixth Relation," as edited by Rémi Siméon, though in his introduction to the "Seventh Relation" he begins with the confusion of tongues at the tower of Babel and dwells on the wickedness of Nimrod. This is merely a restatement of the biblical account; but recent discoveries make it probable that the Indians did possess reasonably definite knowledge of events which occurred thousands of years ago.[1] Cyrus Thomas, as stated in chap. xv, discussing the Maya inscriptions of Yucatan, alludes to dates about 4,000 years anterior to the date of the inscriptions, which he thinks may have been written not long before the Christian era, thus reaching back over 6,000 years. Mr. Thomas discredits these dates as wholly improbable, but at least they justify further investigation before they are summarily dismissed. Mexican writers allude to old records which appear to have been chronicles from their name, as, for example, the *teoamoxtli*, sacred book, of the Chichimecs.

The Tlacochcalca.—A tribe repeatedly mentioned by the Indian chronicler is the *Tlacochcalca*. It may be only a coincidence, but the syllable "*coch*" of this word is phonetically equivalent to "*cush*" in *Cush*ites. The *Cush*ites

[1] I see no way whatever of verifying these positive dates at present.

"The aborigines of America have preserved a clearer and more accurate remembrance of the great archaic events narrated in Holy Writ than the natives of the eastern hemisphere, with the only exception of the chosen people of God."—B. P. De Roo, *America before Columbus*, Vol. I, p. 211.

"There can be no doubt that the Toltecs had a clear and distinct knowledge of the universal deluge, of the confusion of tongues, and of the dispersion of the people."—Francesco Saverio Clavijero, *History of Mexico*, Vol. I, p. 116.

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are lost in the obscurity of forgotten ages. They were, for one thing, an Ethiopian people, as is definitely asserted by the ancient Egyptians. But some authorities claim that they originated in Arabia. The pre-Semitic language and people of Babylonia were certainly Cushitic. What does the word mean? Evidently "The Bowmen" since *tlacochtli* is an arrow in Mexican.[1] Another name for the Tlacochcalca was Nontiaques, and *Nandi* is another name for Siva "the glorious one."

This tribe apparently equaled in importance, if they did not surpass, the Mexicans themselves. He says this tribe left Aztlan or Aztlan-Chicomoztoc, that is, Aztlan of the Seven Caves, about 1272 A. D. This place or country was called Tlapallan. A long interval elapses between the building of the tower of Babel and 1272 A. D. Hence we have practically, as yet, nothing but tradition and the evidence of comparative philology to fill up the gap. The Chichimeca left Aztlan about 50 A. D., the Azteca, 1064 A. D., arriving at Tlalixco about 1087 A. D. To formulate from the *Annals* any hypothesis as to the routes traveled by the Indians or their manner of transport, would be unsafe, though Chimalpahin says the Chichimeca traveled by boat (Second Relation, year 50).[2] Yet most writers agree that the Toltecs preceded the Chichimecs. There evidently exists either a confusion of names or a confusion

[1] This was written comparatively early in my investigations. It is allowed to stand since it is not improbable to suppose contact between these peoples at a very early date.

The word *kuch*, a tribe, appears in India as late as the fifteenth century. The Turkish word for *bird* is kush; English *cushat* the ring-dove, hence the idea of *flight* may have been the potent factor in naming an arrow. Khasti is a bow in Assyrian. Since writing this I have found a curious confirmation of my hypothesis in "Prehistoric Moundville" by H. Newell Wardle, *Harper's Magazine*, January, 1906. A copper arrow-head was found modeled somewhat after a bird's head. Mr. Moore of the Bureau of Ethnology arrives at the same conclusion regarding the bird and the arrow. See p. 141, *infra*.

[2] Quoted by Siméon from MS.

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of dates, else the Chichimecs *were several hundred years on the way*, which is not probable.

Chimalpahin says that when the Tlacochcalcas left Tlapallan,[1] they traversed a great sea on the shells of turtles (boats of that form or name, probably) and reached a great river, the course of which they followed.[2] Then they returned again toward the east (?), to perform religious duties before the sun. For this reason they were called *Teotlixca*, that is, "*face to face with God.*" This last name suggests another difficulty which adds to the confusion. Here was the name of a tribe changed, owing to a single fact in their history, and we have already seen (p. 126) how the *Chichimecs* changed the name of the *Chalcas*. It will be observed that these people were very pious. Again they crossed the sea and this time visited "Mermaid Land." They crossed the sea in two places, landed on a large island and explored it, and soon after arrived in Xiuhpetlapan, 1272 A. D., where they remained a year. Next they came to "*Spider Mountain*"[3] and then to "*Snake Mountain*" and later to a place where the timber or scrub was so thick that they had to cut their way through it.

It will be seen that all this, while specific, is bewildering, because we cannot identify positively one single place and such a name as "Snake Mountain" affords no clue.

[1] *Tlapallan.*—The synonyms for this place are Aztlan, Chicomoztoc, Tzotzompa, Nonohualco, Quinehuayan, Teocolhuacan, Tula, Tollan, Amaquemecan, Temoanchan. I have already discussed the two first. But I fear efforts to reach convincing derivations for the others are futile [see chap. xvi]. Not all add Amaquemecan and Temoanchan. The Mexicans call the north the *right* hand; the south, the *left* hand. This is the reverse of the Hindu method. It may be considered as one proof that the Aztecs came from the *west*. In the ceremony of "binding up the years," mo'lpilli in xiuitl, which occurred at the end of each cycle of fifty-two years, the officiating priest always faced the *west*.

[2] Was this river the Tigris-Euphrates to the sea or the Hoang-Ho to the sea?

[3] Cf. the "Earth Spiders," cave dwellers, of Japan; Batchelor, *The Ainu.* *Xiuhpetlapan*, is the "country of grass mats."

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The only large islands worthy that name in the north Pacific, and which necessitate crossing a "Great Sea" to reach them, are the Hawaiian Islands. The only great rivers (on this side) are the Sacramento and the Columbia, unless we adopt the Alaskan route and the islands which constitute the extension of the Alaskan Peninsula.[1] There are strong arguments against the probability of the peopling of America from the Pacific side. In fact it is positively asserted that America was inhabited at the close of the glacial age by immigrants from western Europe who came by a northern route.[2]

Aztlan.—Where was Aztlan-Chicomoztoc? Possibly it was in North America and the Great Lakes were the sea, as before remarked. There has been much puzzling over the situation of Aztlan and the meaning of the word. Some think it is cognate with aztatl, the egret heron and place the "Seven Caves" on the south Atlantic or Gulf coasts, or specifically in Florida. But there are no caves in Florida, and aztatl cannot be connected easily with Aztlan.

According to De Roo, there is, or was, a small pyramidal mound on an islet in Lake George, Florida. Humboldt describes a Mexican painting representing Aztlan, as a small island with a teocalli and a palm tree growing near to the temple. Florida abounds in palm trees, but apparently the insuperable objection to supposing Aztlan to be in Florida is Chicomoztoc, "the Seven Caves;" constantly mentioned in connection with Aztlan. Rémi Siméon appears to think it a fact that the Chichimecs

[1] Also see reference to O. T. Mason's sea-route, Indo-Malaysian. Keane, *Ethnology*, p. 365.

[2] D. G. Brinton, *American Race*, p. 28. But Petitot in *Asiatic Origin of the Esquimaux* makes equally convincing arguments for the other side of the question, such as the finding of drawings of monkeys and elephants, on Esquimaux tombs, traditions of reindeer and the assistance the Japan current would render to boats. Also the west is called by a word which means *behind*.

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divided into two branches, in Florida, one going directly to Mexico led by Quetzalcoatl and Uemac and the other to Yucatan. The former was highpriest, the latter regent of the earth.

Clavijero places Aztlan east of Zacetecas, and the Seven Caves were, in his opinion, large buildings, the ruins of which still exist. But Chimalpahin distinctly states that the Tlacochcalcas crossed the "Great Sea" *after* leaving Aztlan. Boturini placed Aztlan in Asia.[1] But A. von Humboldt thought Aztlan must be sought in America north of the forty-second degree of latitude. Chimalpahin's reference to timber and snow corroborates this view. Betancourt placed it 2700 miles from Mexico.

It seems absurd, however, to place Aztlan on the small barren islands off the coast of southern California as some writers have done. Those islands might have been a temporary stopping-place, but certainly they could not have been the permanent seat of any tribe worth considering. Furthermore, Chimalpahin remarks that in the year 1274, the Tlacochcalca reached a place where it snowed on them, "*oncan inpan ceppayauh.*" If they left Catalina Island and traveled south, they should have reached in two years a country where it never snows except on the tops of the very highest mountain peaks. This snow fell soon after they passed through "the dark woods."

[1] Clavijero did not know Boturini's reasons for this opinion. But Boturini may have been right. It is said that he was a very learned man. *As*, in Aes-ir, doubtless means something like "home of the gods," as before stated. Compare *As*-gard, "stronghold of the gods." But there may naturally have been a *new* Aztlan on the American continent just as there is a *New* York, a *New* Spain, etc. Brasseur de Bourbourg found reference in a Quiché MS to *four* Tulas, one of which was in the *east beyond the sea*. One writer (Prescott, Vol. I, p. 11, ed. note) thinks *tal*, *tol*, *tul*, originally applied to the Himalayas, the root being found in English *tall*, in Atlas, Atlantis, Italy, Aitaly, etc. Ultima Thule has also been mentioned. Here apparently nothing is certain. There are *caves* in the sea cliffs north of San Diego, at la Jolla.

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It was not the Tlacochcalcas alone, whose fortunes Chimalpahin follows specifically, as the following translation will show:

I tochtli xiuitl, 50.—Nican ipan inin acaltica in ohuallaque in ueuetque Chichimeca in motenehua Teochichimeca; [also called Azteca] in uei apan ilhuicaapan ohuallaque in ohaullanellotiaque, ompa quiçaco achto oncan motlallico in itocayecan Teocolhuacan Aztlan. (Second Relation.)

Translation:

1 year rabbit, 50 A. D.—Now the ancient Chichimecs, called "the godly Chichimecs," embarked on the great sea, wide as heaven; they arrived by means of oars; they landed and first established themselves in a place called (by them?) Teocolhuacan *Aztlan.*

Here we have Aztlan coupled with Teocolhuacan and distinctly not the original home. It was the place of "the Divine Brotherhood," "*ca anepantla aitic,*" "in the *middle* of the water." Aztlan was described as a delightful land in which all were happy. Ducks, herons, and other water-fowl abounded. A variety of edible fishes swam in beautiful streams whose banks were cool with refreshing shade. Song birds of bright colors enlivened the woods with music. When the wanderers left this paradise, all was changed. The land became a desert, the animals were ferocious, the serpents venomous, the shrubs became thorns to tear the flesh, and even the worms were malignant. This all sounds very much like the story of the expulsion from the Garden of Eden. The Aztecs changed their name to Mexican by command of Uitzilopochtli. God gave them the bow and arrow and the fish-net and Uitzilopochtli said to them: "Ye shall for the first labor." "Yehuantin yacachto tequitizqué."[1] This again sounds like the primal curse that man shall earn his bread by

[1] Dr. Seler, *Alterthums Kunde*, Vol. XI, pp. 33 ff., *illustrations* of the pilgrimage.

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toil. These people evidently considered themselves a pious, perhaps a "chosen" people, though the Romans spoke of "pious Aeneas." But the chief points to be noticed are that they crossed a "great sea" in boats and reached an *island*. Where? This account *might* favor the view that they did *not* come by way of Behring Strait, or the Aleutian Islands, since there is mention here of but *one* island. He further says that they arrived *naked*, a statement which precludes the northern passage.[1] But the account here is too concise and vague. The people of the Mexican plateau were excessively superstitious and at the same time punctilious in the observance of their religion. It was a common practice for them to strip naked for the performance of certain rites, especially in the practice of their exorcisms. It is possible that the newcomers, on approaching land, laid aside their clothing and waded ashore in observance of some religious rite or in obedience to some superstition. In this way they may have literally "arrived naked." It is not probable that they made a long voyage nude, for the lowest savages make some pretense of clothing themselves. In classic usage naked sometimes merely meant unarmed.

Finally, it will be observed that they landed in *Aztlan*. Hence the investigator must identify first of all this locality and its synonym *Chicomoztoc*.[2] They are one and the same, since all accounts agree on these two places.

It is a noteworthy fact that nowhere in these accounts of the wanderings of the Nauatlaca is there a single allu-

[1] Siméon says *pepetlauhtiaque* may also be translated "in want." I should translate it "clothed in skins," or better textile fabric, grass or wild hemp. (See "Nudity Rites," p. 157.)

[2] In a painting giving the history of the Aztecs from the Deluge to the founding of Mexico, 1325, Chicomoztoc is given as the *seventh* station from Aztlan, but this fact may not be significant when we consider that *Tenochtitlan* was one station and *Tlatelulco*, its suburb, another.

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sion to any meeting of hostile tribes. There was no fighting on the way. This fact is certainly unique in all history. The annals are absolutely silent on this question of inhabitants of the countries passed through, except one instance where the astonishing statement is made that they met people with three legs and feet like birds.[1] But it is not a reasonable conclusion that America was uninhabited at the time of the arrival of the Nauatlaca.

The *Mexica-Chichimeca* arrived at the present site of the City of Mexico in 1325, according to Chimalpahin. Other writers assign different dates varying from two to sixteen years. It has been repeatedly stated on good authority that the first comers saw on an islet in the lake, an eagle sitting on a cactus (nochtli), devouring a serpent, and from that incident they named the place Tenochtitlan, "place of the cactus." This word, however, leaves out entirely the serpent and the eagle, in spite of the corroborating evidence of the Mexican coat-of-arms. Chimalpahin asserts that the party was led by the chief Tenochtzin and it is altogether probable that, like many other founders of cities, he called the place after his own name which also means a species of cactus.

[1] This description fits the sculptures of the demons in the palace of Assurbanipal at Koyunjik. Also cf. Dr. Sven Hedin (*Harper's Magazine*, September, 1908), for realistic account of the monsters depicted on Buddhist temples to frighten away evil spirits.

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CHAPTER XVI

The Aztlan Legend—Climate—The "Ten" Places of the Migration—Specific Appellations—Culture Names—Spelling of Names—List of Geographical Names in Mexico and in Asia.

It must be borne in mind that the Nahua, like the other peoples of the world, had their myths which go back to the very cradle of the race. It is no more to be expected that their myth places can be identified positively than that we can identify the Garden of Eden positively. Aztlan itself may be such a myth name, though that question will be discussed after some other names have been considered. Let us consider first: Where was the Nahua *patria?*

I have shown conclusively that Nauatl is an Aryan language.[1] Furthermore, it is closely related to Zend and Sanskrit, but nearer phonetically to the former. It is in fact older than either and is, I think, closely akin to the archaic Aryan dialects of Kafiristan.[2] For example, it retains the *vigesimal* system of numeration in common with them which all the classic Aryan languages have discarded. A Kafir ("infidel") word for god is *deok*, which perhaps survives in the Mexican *teuctli*, a leader (or god). The ⊤-ornament is still found there. This was the form of Aztec money. Animal sacrifice still exists in Kafiristan. On the head-waters of the Oxus in Afghan Turkestan we find such culture names as *Cutlers' Vale, Smiths' Vale; Valley of Eye-paint.* With these compare

[1] *Mexican in Aryan Phonology.*

[2] The Dards and the Galchas have remained *in situ* near the head-waters of the Oxus. The home of the Indo-Iranian race must have been in this neighborhood. R. N. Cust, *Modern Languages of the East Indies*, p. 32.

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such Mexican names as Yacapichtlan, place of *painted noses*, Çacapechco, place of *straw beds*. Notice further that *two* of these names refer to *handicrafts*. Bronze working was carried to a high state of the art in western Asia and in Anahuac. The country is also rich in *minerals*.

Climate.—This may be as good a place as any to refer to some curious facts in meteorology. The Aztecs called the west *Cihuatlampan*, "woman's region," the "mild quarter." An Algonquin legend makes Manabozho son of the granddaughter of the moon and the *west wind*. A Scottish superstition is connected with the *west* wind. "Prayers to the moon in the face of a *west wind* while it is *raining* will cause you to dream of your future husband."[1] The beneficent winds of the Pamir region which bring the rain are southwest winds,[2] while in Mexico the trade-winds are *east* winds. The Aztec sacred quarter was the *west* (chap. xvii, "Baptism"). The Nahua called the sky *ilhuica tliltic*, *black* heaven. In high altitudes the sky looks black.

The "ten" names.—Let us proceed to examine in detail the *ten* Aztlan names. Are any of these names common to Mexico and Indo-Iranian Asia? It certainly is to be expected that they should be so found. We have English names in America from names in England. We may expect a new series of Aztlan names in the new country and it is these *new* names which have led linguists and archaeologists astray. The "ten" names are: Aztlan, Chicomoztoc, Nonohualca, Quinehuayan, Temoanchan, Tula, Tola or Tullan, Tollan, Tlapallan or Ueuetlapallan, Amaqemecan, Tzotzompa, Teocolhuacan.

[1] *Cyclopedia of Superstitions*, Vol. III, pp. 157 f.

[2] Stanford's *Compendium of Geography*, Western Asia (ed. A. H. Keane), p. 131.

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1. *Teocolhuacan* has always been defined "the land of the divine brotherhood."[1] Some of the Nahua called themselves *Teotlixca*, "face to face with god." Here is distinctly a religious idea. In Mexico we find *Teotihuacan*, twenty-seven miles northeast of Mexico, "the sacred city." Wakhan is a district on the upper Oxus. Here we may have Teoti + Uacan, "Sacred Wakan." Siméon, however, gives a definition which precludes this, but, in my opinion, Teocolhuacan may be analyzed teo + kol + Wakan. *Kol* means a mountain-pass in Asia, in Mexican a-*col*-li is the *col*lar-bone, but it also means *tribe*.

2. *Nonohualca* may be analyzed nono + Ualca. Nono is probably a reduplication of Noa or Nua.[2] Cities of this name are today found in Persia, and countries adjoining the east, as may be seen in the list on p. 149. *Ualca* phonetically answers to Ferghana, a province at the head of the Jaxartes, modern Khokand, but it may be restored as *Galca = Galcha?

3. *Quinehuayan.*—By the rules of Mexican grammar this word may be: (1) Quine-ua, land of the Khine—this name is found from the head of the Jaxartes to the Punjâb and is cognate with *China;* (2) it may be *Khin-ab*, river of the Pamirs; (3) *Khin*, a river + *ehua*, to rise, that is, source of the *Khin* river; (4) by syncope of medial *k* it might be "*Khinaka* people" but I find no such name.

4. *Chicomoztoc*, "the seven caves." This is one of the most important of the Aztlan names and one of the most puzzling. It may be discussed under three heads. (*a*) *Chicome* undoubtedly means seven and *oztotl*, a cave. In Russian it is *ust*, a mouth, an aperture. I shall try

[1] For the existence of a "divine brotherhood" in Asia from time immemorial, see A. P. Sinnett, *Esoteric Buddhism*, p. 50.

[2] This may also be *nohua*, people + vrj, inclosed, set apart, "the chosen people," *Mexican in Aryan Phonology*, Table F.

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to show that *chicome* may in this case be a homonym which does not necessarily mean *seven*, though I incline to the literal interpretation. The river Oxus is also called the Amú Daria and the *Jihun*. The last name may be restored to the ancient Gihon for *Gikon or *Chicon = Chicom. Hence we have Jihun-caves. The Gihon was one of the rivers of Eden. On the headwaters of the Oxus are numerous caves, some of which contain sculptured *colossi*, giants? Here was the ancient *Zohak*, a name which goes back to the very twilight of Persian tradition. Zohak, it is said, was a wicked Persian king (mythical) who invented the dreadful punishments of crucifixion and flaying men alive.[1] After his death the devil made him head gate-keeper in hell. It will at once be seen that this spot may have been "holy" for both Buddhists and the devil-worshiping Persians.[2] In Mexican the name for giants is, in the plural, *tzocuilique*, *zohacs*(?). This may well be an allusion to the colossi in the caves at Zohak. (*b*) If *Chicomoztoc* means "*divine*" there are two adequate explanations. (1) Sanskrit *dhī* (chi) means devotion; *om* is a sacred syllable, *dhik* is an exclamation. The repetition of *om* is an act of piety. This would give us "the sacred caves." (2) *Comitl* in Mexican means a vessel, earthen dish, *combitl; Sanskrit, kumbhá; Greek, κύμβη. Hence we have *dhī*,

[1] *Cyclopedia of Superstitions.*—Professor A. V. Williams Jackson says Zohak was a Babylonian tyrant. In Aztec cosmogony the First Period or Golden Age was also called the "age of giants."

[2] The Chinese traveler, Hwen-Tsang, 630-644 A. D., found here monasteries inhabited by Buddhist monks and colossal statues of Buddha abounded. Dr. Sven Hedin (*Harper's Magazine*, August, 1908) found encircling the Holy Lake Manasowar, in the Pamirs, *eight gun*-pas, Buddhist monasteries. One he speaks of as being terraced. It may be partially a cavern, natural or artificial, on that point he is silent. Sanskrit *dhi* (*chi*) means sacred, *dhi-gun-ust-oc* gives us Chicomoztoc, without any reference to *number*. For discussion of *dhi*, see p. 39, note. *En passant*, this lake is big enough to furnish the Aryan word *boat*, *nav-is*.

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holy + *cumb*, a vessel or utensil. If these were temple caves or even the secret places of worship of a proscribed sect, we get Chi-com-ozt-o-c, the caves of the holy utensils. (*c*) If *chicome* really means *seven* here, then we must satisfactorily connect that number with the caves, but in any case we are still at the head-waters of the Oxus. Dr. Sven Hedin mentions *eight* monasteries at the "Holy Lake" Manasowar. *One* might have been added to seven existing at the time of the Aztec exodus.

The Aztecs were undoubtedly once in contact with the fire-worshipers (see chap. xvii), in fact some of the Nahua tribes must have been fire-worshipers.[1] Zoroastrianism, then, must be taken into account. Zoroaster had *seven* ecstasies or divine revelations and tradition points yet to two of his *caves* at Mt. Sahund and Maraghah, with the fire-altar.[2] Below, in the chapter on "Religion," "Mithra Rites," is discussed the importance of the *cavern* in religious affairs. Dr. Sven Hedin gives a most realistic description of the present condition of hermits immured in *sealed caverns* in this Oxus-Indus country.[3] Their fate is dreadful in the extreme. My own cursory observation of the "caves" of the hermits in the cañon of Mar-Saba, Judea, is in the same line, except that these latter always appeared to have a square hole left for the admission of food and water. Dr. Hedin says that his ears were everywhere and incessantly assailed with the chanting of the sacred phrase, "on mane padme hum."

It may be thought that I have too many alternatives in the case of *Chicomoztoc*. I have tried to give all the possible explanations which my investigations prompted.

[1] See "Mexico," chap. vi, and chap. xvii, "Fire-Worship."

[2] A. V. Williams Jackson, *Persia*, p. 61; also see note, *Oztomecatl*, p. 164.

[3] Dr. Sven Hedin, *Harper's Magazine*, September, 1908.

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Whether this name originally meant "the seven caves," or "the holy caves," makes but little difference, since the localities are the same in either case. In fact it may be a case of two homonyms which in the lapse of ages finally retained only the most evident meaning, and were thus merged into one word.

Seven in magic.—It is hard to escape the conclusion that *magic* had something to do with the constant recurrence of the number *seven* in antiquity. We have the seven caves of the Aztecs, the seven ecstasies of Zoroaster, the seven "castles" of the dasyus in the Vedas, the seven *Amesha Spenta*, or holy immortals, of the Gathas; the seventh day Sabbath originally an unlucky day, it is said; the siege of Jericho, in which seven priests, blowing seven trumpets of ram's horns, led the march round the doomed city for seven days and seven times on the seventh day; the seven golden candlesticks of Solomon's temple; "and there were seven lamps of fire burning before the throne, which are the seven spirits of God" (Rev. 4:5); "and the seven angels came out of the temple having the seven plagues" (Rev. 15:6); there was the book sealed with seven seals (Rev. 5:1); the beast with seven heads and ten horns (Rev. 13:1); the gates of Troy shook seven times when the wooden horse entered, and Rome was built on seven hills. Examples of the occurrence of the number seven might be repeated indefinitely. Seven was a "sacred" number among the Accadians, Assyrians, and Babylonians. The "unlucky days" of the "Farmers' Almanac" are based on this ancient cult.

5. *Tlapallan* is one of the most common synonyms of Aztlan. It must have been a city of importance since the Toltec astronomers met there and revised the calendar

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about 134 B. C.[1] *Tla* is the usual separable prefix, hence *Pallan*, **Paltlan* **Palctlan*, becomes the Sanskrit *Bali*, the chief city of the fire-worshipers and a holy city; in Armenian *Bahl*.[2] In the times of the Greek Bactrian kingdom it was called Zarispa, from *zari*, yellow, some say, so called because of its bay horses, but Curzon,[3] a modern traveler, was impressed with the fact that the river was of a marked red hue. The *Hari-Rud*, Red River, is today a river of Afghanistan.[4]

6. *Temoanchan.* (1) *Temo* means to descend. *Anshan* was the primal seat of the Achaemenian kings of Persia. (2) The *Pandjeh* is an important affluent of the Oxus, rising in the Pamir country. Temoanchan may have been originally *Temopanchan, *p* often being dropped in such cases. But the first locality accords best in the main with the Aztlan names and traditions. The entire west slope of the mountain country is called by the modern Persians "the slope," daman i-koh, just as we speak of the Pacific slope.

7. *Tula, Tola, Tullan, Tollan.*—*Tul* is the name of a pass in the Hindu Kush Mountains. *Toll* is a town of east Afghanistan. The Toltecs built "The Sacred City" *Teotihuacan* in Mexico.[5] It is not to be overlooked that *Tur* may be a Turanian word, the root of Turanian itself or from Accadian *dur*, a fortified place, as Dur-Sargina, a

[1] Review of Veytia's *Calendarios Mexicanos*, *Athenaeum*, Feb. 15, 1908, by A. H. Keane.

[2] I set aside Vambéry's derivation from Turkish *balik*, a city, as having no support.

[3] Curzon, *Central Asia*, p. 145.

[4] The Aztecs referred to Tlapallan as the "old red place." Doubtless the root is Sanskrit bhraj; Greek, φλέγω; Latin, fulgur, if *balk* meant red originally.

[5] Fergusson says, *History of Architecture*, that no Aryan race were ever distinctly builders of great mausoleums. It remains to be seen whether these pyramids were sepulchral.

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town. The Nahua doubtless borrowed words from their Turanian neighbors on the north, and from the Tibetans and Chinese on the east.[1]

A positive case of borrowing occurs in Mexican tepetl, mountain, Turkish tepe, as in Geok-tepe, Greek, τάφος. But who borrowed? All writers agree that the Aryans were prehistoric in all the Oxus country from the Caspian to the Hindu Kush. According to Vambéry the modern Tajiks of Samarcand are of Aryan origin. Iehring places the primitive seat of the Aryans in the Hindu Kush and I think he is right.[2] *Al*tepetl, town, suggests the Arabic article *al* or Assyrian *alu* city, but Arabic is too recent, in the country in question.

8. *Amaquemecan* may mean simply "the home land" from Sanskrit *amá*, at home + *kama*, desirable or kshema, a house; English, *ham*-let. If it is local to Mexico it may mean simply "covered with paper (see p. 142). But the root *Kam* continually occurs in Kafiristan and a more specific use of it is to be sought. There is a tribe called the *Kamoz*, and one of the affluents of the Indus is the Khama.

9. *Tzotzompa* is defined as "the place of human skulls," suggesting a battle-field or sacred relics.[3] But Siméon defines Tzompanco, "the place of the pious." Going back to the highlands we find Tibetan *Tsangpo* or *Tsanpo* means a river, but the word skulls fixes this name as an appellation. It was an Aryan *Calvary*.

Specific appellations throw additional light on the subject. The Tla*coch*calca (see p. 126), were a people of

[1] Turanian dialects were spoken in Persia, Armenia, and Asia Minor, 1500 to 1100 B. C. De Morgan, *Mission scientifique en Perse*, Vol. IV, p. 183.

[2] See Ujfalvy, *Les Aryens de L'Indou Kouch.*

[3] Compare the gruesome relics in the convent of the Capuchins at Rome and the numerous "holy *skulls*" of slain hermits at Mar Saba, Judea.—Cortez pitched his first camp at *Tzompan*tzinco and *Tecohuac*.

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Anahuac. The word tlacochtli means arrow, and Siméon defines the whole "keepers of the arrow house." This definition is not convincing, since we find the Nonohualca-Tlacochcalca mentioned evidently as a tribe, but more likely a priesthood. *Kush* occurs in the Hindu *Kush* Mountains and repeatedly elsewhere. From a historical painting (see note, p. 143) are taken the names of the "stations" in the Aztec migration. One is *Tetepanco*, "place of the stone wall." It is a curious fact that the oasis of *Merv* was surrounded by a stone wall 172 miles in circuit by Antiochus, son of Seleucus. But if the migration was by way of China it may refer to the Great Wall. Alexander the Great also built a wall of many miles in extent to prevent the incursions of the Tartars east of the Caspian. Siméon defines *Amaquemecan*, "covered with paper." So curious a definition demands an explanation since it indicates *local* origin. For purposes of exorcism the Indian went at night into the woods, stripped naked and covered himself with *paper*, then stripping this off he fled home nude (chap. xvii, "Nudity Rites"). *Teotenanco*, "divine" Tenanco (tenamitl, wall), "within the walls," was evidently a *walled* city, Balkh? *Tzincuetlaxcohuatepec* is a "snake-mountain" of some kind; *Chalca-Atenco* is "*Chalca* by the water side;" and there occurs even such a combination as *Quahuitl-itech-omitl-pilcayan*, "the place of the tree on which bones were hanging." Compare the "sacred tree" of Cairo hung with rags.

A similar nomenclature prevails in central Asia today. The map of Afghanistan, Bokhara, Khiva, and northern Persia fairly bristles with compound words; instance, Nochas-Toch-Gai; Yarm-Chata-Bai-Himbesi; Arki-Kurbars-Ali-Bek. Some of these names are plainly Mexican, as the tabulation at the end of this chapter will show.

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10. *Aztlan* itself remains to be considered. It is perhaps the most elusive name in the whole list. It is already apparent to the reader that the ten Aztlan names do *not all apply to one town or locality.* They apply to a tract of country very extensive as anyone may see by consulting the map. It lies, roughly speaking, between latitude 30° and 40° north; and 53° to 73° east longitude, that is, from the Caspian Sea to the Hindu Kush Mountains. Aztlan in the painting of the Aztec "Migration" before alluded to, is pictured as an island with a temple and a palm tree.[1] It is a curious fact that *Chicomoztoc* is named as the *seventh* "station," although synonymous with Aztlan. This coincidence doubtless arose from the fact that *chicome* means seven. That Aztlan was *not the starting*-point is plain from Chimalpahin who records the fact that in the year 50 A. D. the Chichimecs "voyaged on the sea with oars" and finally arrived in Teocolhuacan-Aztlan where they established themselves. "It was an island in the middle of the sea."[2] But the Mexicans made *Chapultepec* a few miles from Mexico a station, the city itself was another, and *Tlatelolco*, a suburb, was another. Hence it is evident that this picture and the other accounts of the migration have no value as actual itineraries, but they appear to represent truthfully the traditions of the migration at the time they were made. It is evident that Aztlan remains without a definite location. It may be a myth place like Eden, or it may be in America, as all the early investigators believed. But this fact would in no wise affect the nomenclature given here for Asiatic towns and places.

[1] This painting was published in *Giro del Mundo* by Gemelli Carreri. Some think it an invention, but Humboldt appears to believe it authentic.—*Researches*, Vol. II, p. 57.

[2] There are islands in the Lake Urumiah held to be in Zoroaster's native country.

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Let us look farther in Asia for Aztlan-Tlapallan. If the Chichimecs when expelled from their country,[1] came down the Oxus (there is a vague report of following a great river) to the Caspian Sea, they followed the old course of the Oxus, no doubt, since the Oxus now empties into the Sea of Aral. An inland people would certainly call the Caspian "great sea," "wide as heaven." They could travel on it a long time "by oar." At the extreme southeast corner of the Caspian lies *Astr*-abad, phonetically *Aztlan*. This alone has little value, and the same may be said of *Az* in the Pamirs. They need support. But there are *Balkan* Mountains near this place and on a modern map west of the Aral is *Ust* Urt which supplies the *ust* in *Chicomoztoc*. Near, in the Caspian are islands, and in the swamps no doubt were herons, *aztatl*, which are associated with Az-ti-tlan the old form of the word. It is to be noted, too, that Chimalpahin says (*Annals* 1272) that the Nonohualca-Tlacochcalca *returned toward the East* to practice religious rites to the *sun*. Here is opportunity for equivocation. They may have simply *faced* the east.

Culture names.—The *culture* names at the head of the Oxus suggest a significant comparison. "Cutlers' Vale," "Smiths' Vale," indisputably suggest handicrafts, *metal working*. The Azteca were skilled metal workers and from *az*, bronze, Sanskrit *ayas;* Latin *aes*, bronze or copper + teca, Greek, *τέκ-τον*, we have worker, artisan. Hence an Aztec may have been simply a bronze smith, and Aztlan, the land of copper or of the bronze working industry, which greatly flourished in western Asia.[2] This word

[1] Some of the Nahua tribes were expelled for rebellion. Bancroft, *Native Races of the Pacific Coast.*

[2] A possible objection to this derivation is that the root should be *ez* as in *ez-tli*, blood, copper color?

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teca, tequitl, always means occupation or business in Mexican.

Continuing on culture names we find *Pantitlan*, "the place of clothweaving." Tibet adjoins the Pamir plateau and Tibet has long been famous for cloth,[1] and Bokhara for rugs. There are no people in North America of which the same may be said except the Navajo Indians.

Another name is *Apazco* (*apaztli*, a dish, water jar). The glyph represents an earthen vessel with a stream of water running into a fissure in the earth. Nobody would think of inventing a name like this. Subterranean aqueducts were common in west Afghanistan. Or it may represent a river issuing from a glacier or entering a fissure in a glacier. The Oxus emerges from glaciers. Atlitlal-ac-yan, another station, means "where the water enters the earth." It may refer to these aqueducts.

The Aztlan glyph[2] is a bird (flamingo?) placed over the sign for water apparently alluding to the sea, with the palm indicating the tropics, but all this may be merely the fancy of the artist who doubtless lived in Mexico and painted from *tradition*. That there has been confusion and *transfer* in these place names seems established beyond doubt since Chicomoztoc is named as seventh station though synonymous with Aztlan.[3]

References have been made to *Ozomatli* "the divine monkey" which is named as "station 24" and is also the

[1] For an extended account in a bulky volume of the reputed discovery of Mexico by Buddhist Chinese, in the sixth century A. D., see Vining, *An Inglorious Columbus*, also bibliography of the subject in Anderson's *America not Discovered by Columbus*.

[2] For geographical "glyphs," see Peñafil, *Nombres Geograficos de Mexico*.

[3] Chimalpahin explicitly states (Seventh Relation, year 1272) that the name Tlapallan-Chicomoztoc was changed to Nonohualca-Tzotzompa-Quinehuayan whence the Tlacochcalca set out on their "migration." Does this mean a voyage *up* country from the "caves" over the Pamirs by way of China to the "Great Sea"? The Aztecs were left behind by the other tribes at Chicomoztoc.

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"day god" of the eleventh day of the month. (See *Ozomatli*, p. 53.) This indicates a country where monkeys are found, but strange to say Chapultepec is No. 25. The monkey in the Old World is found as far north as Tibet and Japan, in the New World, as far north as eighteen degrees, possibly twenty-three degrees. They have been found in the Himalayas at a height of 8,000 to 11,000 feet, where snow and frost occur during several months of the year.[1]

The spelling of geographical names.—Though I have occasionally referred the reader to my *Mexican in Aryan Phonology* I will give here for the convenience of those who do not have access to that work, a few elementary principles. A final *g* or *k* may become *j* which in Mexican is *ch* or *x* with an *sh*-sound. But this guttural may remain primitive, be changed to *sh*, or dropped entirely. In Afghan we find Púshtu or Púkhtu, the name of the language. In the same way an initial guttural may become *j* (sh). Thus it is legitimate to say that *khin* may become *chin*. Tla-pal-lan may have been originally Tla-*balk*-an. In the same way *chantli*, house, may be originally, Sanskrit *kshem*-a. A medial *r* or *g* may be dropped and its place supplied thus: *r* = *i*, *iu* or *u*; a medial *g* = *u* or vanishes, or in Avestan becomes *s*. A *b* or *p* may be dropped or become *u*. Thus *chir*-abad may have been in Mexican *Tziuh*-auat-l. *Ua* in Mexican is a possessive sign, and *uan* its plural, as, teo-*col*-uan, literally the "divine brothers." *Can*, *pan*, *yan*, *tlan*, *co*, *c*, are simply *place* signs.

In these compound words each member of the com-

[1] Montaigne, *Verses of Virgil*, gives a curious account of gigantic apes encountered by Alexander in India; ref. Aelian and Strabo. His account suggests *Hanuman*, king of the monkeys, with his valiant army.

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pound may have its own specific meaning. These rules hold good for Indo-Iranian dialects as well as the Mexican. The spelling of these names varies also with the nation first transcribing them into western literature. Thus French *tchouk* is English *chook*, *djin* is *jin*. It is also common in Indo-Iranian dialects to insert "irrational" vowels and prosthetic letters as Sanskrit *rinâkti*, he runs; Avestan *irinâkhti;* but Sanskrit *adhika* becomes Mexican *chica*.[1]

It may seem as if it were merely guessing to derive *Quinehuayan* from *China*, the Chinese, or *Khin* + *ehua*, to rise, or *Kin-ab*, a river. It cannot be all three as a matter of course. What *Khin* or *Kin* meant originally is undetermined. But it *is* certain that it is an Asiatic place-name. *Ehua* is Sanskrit *r* (*ra* or *ar*), Latin, orior, rise. Hence *Khin* may originally have been a mountain, a river, or a place of gathering. *Khinab* + yan would mean "place of the river Khin-ab or Chinab," a river of the Pamirs.

A scholar, whose knowledge of languages should have guided him better, writes me that such names may be taken from non-Aryan languages and made to fit *ad libitum*. It may be done occasionally but it cannot be done regularly. Such criticism is of a piece with the ingenious hypothesis of a certain Scotchman who tried to convince the world that the Sanskrit language was a cunning invention of Buddhist priests to deceive Christians. A professor in an English university criticized me because I had *not* made non-Aryan comparisons and an American linguist found fault because I *had made* such comparisons.

[1] See Louis H. Gray, *Indo-Iranian Phonology;* and "Dialects," p. 99 *supra*.

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A LIST OF NAMES COMMON TO MEXICO AND ASIA

Introductory remarks.—This comparison is a work of almost insuperable difficulty. It requires a profound knowledge of many languages, unlimited patience, and *plenty of time.* As I am not overstocked with any of these things I submit this list as the best I could do under the circumstances. Things must be made clear at the risk of some repetition, and a few words as to the general character of Mexican word-formation are necessary to begin with. The Mexican word *teca* means work, occupation, an office, tribute. Hence a tlaxcal-*teca*-tl may be one who keeps bread or who has charge of bread. A *tlaltecatl* is a superintendent of granaries or doubtless a tithing man. *Catl* has at times the same signification, as *atecpancatl*, a supervisor of ditches. But in spite of much labor, I have never been able to give a root determination to *catl* and *otl.* From these remarks it may be seen that an office or tribal appellation existing in Asia may have continued under the same name in America though the thing which gave the name no longer existed (see pixquitl, p. 49). Again, names purely occidental doubtless sprang up in America under these same forms. *Teca* also became linked with terms of contempt as Çoçol-teca, "dung people." *Amantecatl*[1] (Olmos, *Gram.*, p. 33) was an *artist*, hence his designation was not lost during the disorganization incident to the migration. The word is probably Sanskrit, *mā*, to measure, fit, be "handy;" *manu* quaerere is handiwork; *yezhuahuacatl*, may be the *yezidis*, devil-worshipers, *yájvan.* They were superior officers in the court, royal entourage, of Mexico. A comprehensive study of Mexican officialdom would surely

[1] Cf. the *amanta* of Peru who was at once philosopher, reciter and herb doctor. *Ized* is New Persian, a *god*, Satan?

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prove profitable. But unfortunately these qualifiers in such compounds cannot be proved absolutely by cognates as can *teca* itself, from Sanskrit, *takṣ;* Greek, *τέκ-τον.* Furthermore, the original meaning of most geographical names is lost, hence phonetics alone must serve as a guide.

Mexican	Asiatic
Nahua, a tribe.	Kala-Nao, Persia.
Nahua or Nohoa, the same tribe.	Shahr-Noa, Khorassan.
Tula or Tola, a city.	Toll, a town, Afghanistan; cf. Etruscan Ve*tul*onia.
Amantecatl, an official.	Amantai, town, Bokhara.
Cuixtecatl, an official.	Kṛs, Sanskrit, to plough; kṛsti, tilled land, people; cf. *Krishna.*
Calli, a public building.	Kal'a, Sassanide palace; towns, Kala-nao, Kala Kumb, Kala-vamir.
Chantli, a house.	Chan-Ojuk, Chan-Kui, towns in northeast of Persia.
Nal, clear, as water or weather; a-nal-co, across the water.	Nal, a river, Baluchistan.
Milli, a field; milpa, in the country.	Mil-Omar, a town south of Merv.
Uemac, an Aztec chief.	Eimak, the four tribes, Afghanistan.
Uei, large; cf. Etruscan *Veii.*	Ve-Rud, Parsī name of the Oxus.
Me, a Mexican plural ending and Cuixtecatl as above.	Chech-me, Chech-me-Aris, towns in northeast of Persia.
Tlal-*manal*-co, town settled by Nonohualca after leaving Tlapallan.	Mei-man, place, northeast of Cabul.
Altepetl, gen. name for town.	Geok-tepe, town, Russ. territory.
Ṭemoanchan, town of the migration; *temo,* in Mexican, descend.	Daman i-koh, hillside, "the slope," New Persian; *Anshan,* legendary city of the Achaemenian kings.
Miahuaque, a tribe; miauatl, a corn-stalk bloom.	Miau-ab, a town on Persian Gulf.
Quinehuayan, starting-point of the "migration."	Kin, (1) *Kin-abad,* town on the upper Oxus; Khin-ab, one of the heads of the Indus;

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MEXICAN	ASIATIC
	(2) Khin + *ehua*, "the rising," head of the Khin River; (3) The China or Chin-tan were the Chinese; cf. Ainu, *Kim*un-guru, mountaineers.
Acollhuacan, town of the A-*col*-ua; a-col-li, the *shoulders; col*, also means tribe. Hence Acolhuacan may mean Kul-Wakan; also Teotihuacan, "sacred city" of the Toltecs.[1]	Kul in Pamirs and Alps, mountain pass; Kara-Kul, black pass; Wakan, a valley at head of Oxus. From the above may be teoti-Wakan, "divine Wakan;" Siméon, "where they conduct the gods" (teotl).
Culiacan, a town.	Kul, as above.
Tla*pal*lan, town of the migration (see p. 139).	Balkh, capital of ancient Bactria, Merv oasis.
Yacapichtlan, "place where they adorned noses."	"Eye paint town," head of Oxus.
Coxcox. Aztec Noah; Tezpi, Michoacan Noah.	Kush, in Hindu Kush; Hydaspes River (Indus); or Vishtasp, early Persian-Bactrian king (not good if divided Visht-asp).
Nontiaque, a Nahua tribe.	Belut-tag and Kara-tegin, range of the Hindu Kush.
I*pal* Nemoani, god.	Kan-i-bal, Bala-Murghab, towns, Khiva.
Chal-co, "place of precious stones," 18 "station" of Aztecs.	Chal-Ata, ruby mines and gold, Upper Oxus.
Nono*hualca*, a tribe of the Nahua.	Ferghana; Baldjuan, town, Bokhara; the *Galchas*, primitive Aryan tribe in Pamirs. Merv was ancient Garjistan.
Aztecatl, an Aztec (see p. 144).	Aztecani, people mentioned by Strabo, Panjâb country.
Coyohuacan, place of coyotes (Siméon).	Gorys, city on Attock (Strabo); kâuravya; or *kavi* + *yaj*.
Poyauteca, a tribe.	Cf. *Porus*, Indian king; cf. Ainu, *poiyaumbe*, brave?
Aztlan, Nahua "Eden."	Azha, town, head of Indus.

[1] The A-col-ua were so called because they wore a *scarf* over the shoulder. The Vedic neophyte assumed a *scarf over the left shoulder* and was dubbed twice born.

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CHAPTER XVII

RELIGION AND CUSTOMS OF THE NAHUA COMPARED WITH THOSE OF ASIA.—General Remarks—Religion of the Nahua Composite—Human Sacrifice—Fire-Worship—The Blood Sacrifice—Izcalli the Resurrection—The Unleavened Bread—Winter Solstice Festival—Rites of Mithra—The Descent into Hell—Aztec Future States—Nudity Rites—Immaculate Conception—The Cross—Prophecies of a Savior—Confessional and Absolution—Baptism—Marriage—Births—Burial—List of Deities Common to Mexico and Asia.

General remarks.—The title of this chapter should not lead the reader to expect an extended and detailed treatment of a subject which in itself would require a volume for its elaboration. I shall give only a brief outline of a few matters which I consider significant since my book must rest on its *philological* aspect for its vindication before the world. A few thoughts to begin will be in place regarding the significance or non-significance of the items set down. It is unscientific and unsafe to base claims of genetic relationship between two tribes or nations on *casual resemblances* in language, traditions, or national customs. Many such resemblances may have originated independently, though I think some writers carry their incredulity beyond the bounds of reason and consequently accomplish little or nothing. For example, traditions of the deluge appear to be universal. They point to the original unity of the human race but are not conclusive. The same may be said of serpent worship which appears to have been universal. The moon, the owl, and the rabbit appear to be nearly universal objects of adoration or fear and the mirror myth is certainly old Aryan. The fire

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myth is probably universal. From the nature of fire and its early use such must be the case hence the fire and the sun cult except in specific applications is non-significant.

Religion of the Nahua composite.—The religion of the Nahua was no doubt *composite.* From the habitat of these primitive tribes in the region around the head-waters of the Oxus and the Indus they must have been acquainted with the gross superstitions and idolatry of the primitive Aryans, the astrolatry and ophiolatry of the Turanians, the Accadians, and the Babylonians, likewise with the purer cult of the *fire-worshiping* Persians and the strange sect of *devil-worshiping* Persians.[1] The religion of the Nahua appears to have borrowed something from all these. The Toltecs, it is agreed, had a milder and purer form of religion than the Aztecs. Their chief deity Quetzalcoatl was a serpent god, but in the form of a man he taught the useful arts. Besides, according to Canon Rawlinson, the serpent was originally beneficent, only in later times did he become the enemy of mankind.[2]

Human sacrifice.—According to Clavijero the Aztecs instituted the abominable practice of human sacrifice only about two hundred years before their advent into Anahuac. But this is to be doubted, considering the origin of that people, and they undoubtedly brought it with them from Asia. Human sacrifice, says Dubois, existed in India within the lifetime of old men with whom he had conversed, and that is but little over one hundred years ago. In 1733 the Frenchman Renaudot saw girls devoted to the *Būds* or evil spirits and Forlong remarks that he fears the same thing may be done yet when the vigilance of the

[1] *Izedis or Yezidis*, still numerous. Dr. Paul Carus, *History of the Devil*, p. 63. Cf. Japanese, *Yezo*-jin, dwarfs.

[2] See note 2, p. 123.

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government relaxes.[1] I will give two specific instances of Aztec sacrifice. In preparation for the festival of Tezcatlipoca, the victim who personated the god was a handsome young man. He was carefully attended and greatly honored. Twenty days before his immolation, four maidens were assigned to him with whom he had carnal conversation. On the fatal day he marched with honors to the sacrificial block. Children were sacrificed to Tlaloc the god of rain. They were immured alive in a cave or thrown into a whirlpool in the lake.[2]

Fire-worship.—From their original seat in the Pamirs, the ancestors of the Nahua must have come in contact with the fire-worshiping *magians* who carefully guarded their sacred fires. Where was the field of Zoroaster's chief labors? There is some doubt on this point. Professor Jackson is positive, with very convincing reasons, that Zoroaster was born in northwest Persia near Lake Urumiah.[3] But a host of authorities agree that the chief field of Zoroaster's labors and the place of his death must have been Balkh the capital of ancient Bactria. The Parsīs of Yezd at the present day, says Jackson, know nothing of the Urumiah legend. I think it safe to conclude that the Aztecs got the fire element in their religion from the fire-worshipers of Balkh (Tlapallan?). The Aztecs kept these fires burning day and night in the towers of the great *teocallis*,[4] and their extinction was considered a calamity. Once in 52 years all fires were extinguished and relighted with solemn ceremonies including human sacrifice (see p. 101). According to Ujfalvy evidences of

[1] J. G. R. Forlong, *Short Studies in the Science of Religion*, pp. 102-12.

[2] Sahagun, *Cosas de la Nueva España*, Bk. I, cap. v.

[3] A. V. W. Jackson, *Persia Past and Present*; and same author, *Zoroaster*.

[4] The great temple of Mexico was inclosed by a stone wall. The enceinte contained about 70 chapels, cá; 5,000 priests were attached to this service.

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the old fire-worship exist today, even among Mahommedans, all over the ancient Bactria and the Pamir country. For example a Tajik will not blow out a candle with his breath but uses his hand or a fan. He will not spit in the fire. They also have a "fire cure."[1]

The blood sacrifice.—The self-tortures and penances of the Aztecs continually remind us of similar horrors practiced in India from time immemorial. They gashed themselves with knives on the cheeks, ears, and thighs and smeared the blood over their countenances. They pierced the tongue with a maguey spine and forcibly drew twigs or grass stems through the wound. They went *naked* to the woods and placed these bloody agents of torture on a sort of cage made of canes. The women kept up these hideous rites for five days, the men for eight days before an approaching festival of a god. Devotees bought pheasants and beheaded them in the temple precincts, then dipping white paper in the blood which was caught in a vessel they went round the sacred inclosure smearing the mouths of the various gods with blood.[2]

Izcalli, or itzcalli, the resurrection.—The feast of Izcalli was held at the end of the year of 360 days after which came five days called *nemontemi*, superfluous days, literally, "they fill up." This end of the year feast corresponded in a general way to the Christian Easter.[3] It was a time of general rejoicing. Meats were roasted and to each person was given a *nauhquiltamalli* or cake. The food was eaten hot and wine drunk. In the fire sacrifice of the Zoroastrians little cakes with small pieces of holy

[1] Ujfalvy, *Les Aryens de l'Indou Kouch*, pp. 95 ff.

[2] Sahagun, *Cosas de la Nueva España*, appendix to Bk. II.

[3] The idea of the resurrection was Mazdian rather than Jewish, Samuel Johnson, *Oriental Religions*, pp. 138 ff.

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meat were eaten and *haoma* (soma) was drunk.[1] Human sacrifice occurred in bissextile years.[2] In these last years *Paynal* was introduced. He was an emergency lieutenant, vicar, of Uitzilopochtli and originally was not a god but a *man*. Compare the *man*-god Jesus.

The unleavened bread.—This festival would appear to suggest the Jewish feast of unleavened bread, but it was probably of wider signification. The *atamalli*, "water cakes," were made of meal and water, not even salt was added. This feast occurred only once in eight years.

The winter solstice festival to Uitzilopochtli was a time of blood-letting penance, fasting, processions as preliminaries. An image of the god was made from dough mixed with the blood of sacrificed children who were bought or offered voluntarily. In the bread were put seeds of the nauhquilitl (savory, Satureia hortensis) and the whole was baked. A priest shot an arrow into the heart of the god. The heart was then eaten by the king and a piece of the image was given to every man, but no woman was allowed to partake. Compare with this the fact that no woman was allowed to recite the Vedas or perform sacrifice without the presence of her husband. A similar feast takes place today in Persia (see Izcalli).[3] Compare this with the Christian sacrament in which the body of Christ is supposed to be eaten. The eating was called teoqualo, "the god is eaten." Concerning the devil-worshipers,[4] Carus relates the story of a German traveler who asked one of these people why they worshiped the devil. The naïve answer was, "why should not the devil

[1] Dr. Paul Carus, *History of the Devil*, p. 57.

[2] For a description of the festival see Sahagun or Bancroft, *Native Races of the Pacific Coast*, Vol. III, pp. 288-324.

[3] Dr. Paul Carus, *History of the Devil*, p. 69.

[4] *Ibid.*, p. 64.

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help us since we are the only people who ever helped him?" Tezcatlipoca, the Mexican devil, in his contest with Quetzalcoatl and the Toltecs certainly acted up to his reputation.

Rites of Mithra.—The Mithra cult originated in Persia at a very ancient date. W. S. Brackett compares the rites of Mithra with those of the god Uitzilopochtli. The neophyte in both cases after undergoing an ordeal of horrors, some of which occur in a *cave* or subterranean chamber, is hailed as "born again." Compare this with the Vedic "twice born" and the Christian "born again." The author gives two illustrations side by side of Mithra and Uitzilopochtli. The figures are strikingly similar, both surmounting a globe and both accompanied by the bird and serpent emblem.[1] Curiously enough Mr. Brackett arrives at the conclusion that *Persia was settled from Mexico.*

Descent into hell.—The rites of Mithra and Uitzilopochtli which were *underground*, the sacrifice of children to Tlaloc in a *cave*, the holy *caves* of Zoroaster, the terrible self-immolation of Buddhist devotees in dark, sealed *caverns*, the descent of Christ into *hell*, all point to a common origin and cause, the desire to make the penance as dreadful as possible in *darkness* and secrecy. "Stations" 3 and 4 in the Aztec migration were "the places of humiliation and *grottoes*."

The Aztec future states were three: (1) *Ilhuicac*, region of brightness according to the Sanskrit, or rocaná; Latin, lux; (2) Tlaloc's, *terrestrial paradise*, a beautiful land of streams, fruits, and flowers where squashes and corn grew without the trouble of cultivation; (3) *Mictlampan* or hell, as some writers define it, but, in the Nauatl language, simply "the land of the dead."

Compare these three states with heaven, purgatory,

[1] W. S. Brackett, *Lost Histories of America*, p. 138.

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and hell. The belief in the immortality of the soul was Aryan and Zoroastrian, also the belief in angels.

Nudity rites.—Barth gives the following as a very curious example of the belief that nudity was efficacious in some observances. "If a man takes seven cotton threads, goes to a place where an *owl* (Tlacatecolotl) is hooting, strips naked, ties a knot at each hoot, and fastens the thread round the right arm of a fever patient the fever goes away."[1] The Aztecs had rites which necessitated stripping nude in the woods and fleeing to the house naked. Chimalpahin says the Chichimecs landed *naked.* A Latin author, Virgil, I think, exhorts the husbandman to plow naked and sow naked. This has been construed to mean *unarmed* but perhaps in some cases it should be taken *literally.*[2] Strabo records that the Gymnetae (naked) of India lived in the open air practicing fortitude for the space of thirty-seven years, and were singularly esteemed. When Onesicritus desired to converse with Calanus, an Indian Sophist, the latter asked the Greek to strip naked and lie down on the rocks beside him before the discourse began.[3]

The Immaculate Conception.—There was a Zoroastrian prophecy that a *virgin* would give birth to a savior.[4] *Uitzilopochtli* was begotten by immaculate conception but unfortunately for the parallel his mother was a widow and the mother of grown children.[5] These the monster promptly slaughtered immediately after his birth. A late writer takes the ground that Jesus was an Aryan.[6]

[1] A. Barth, *Religions of India*, p. 279.

[2] Fort William, Ont., April 9, 1908. "Doukhobors again commenced parading naked on the streets here this morning."—*Chicago Tribune*, April 10.

[3] Strabo (Bohn's Library), Vol. III, p. 112.

[4] Countess Martinengo Cesaresco, *Contemporary Review*, October, 1907.

[5] Clavijero, *Storia di Messico.*

[6] Professor Paul Haupt, Congress of Orientalists, 1908, cf. letter to the *Nation*, September 10, 1908.

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The cross was a pre-Christian symbol. When Quetzalcoatl landed at Pánuco he wore a handsome robe adorned with crosses. The cross is frequently found in the ruins of Yucatan and in the oldest Cretan excavations.

Prophecies.—The Aztecs believed that *Quetzalcoatl* would eventually return and redeem them from a condition which they considered "fallen." A bull predicted the coming of Zoroaster 3,000 years before his birth and an ox spoke his name 300 years before. All these parallel the prophecies concerning the coming of Christ.

Miracles accompanied the birth of Zoroaster. He even had a *Herod* in the person of a Turanian king. He disputed with the wise men.[1] He was tempted by the devil.[2] He recognized three divine principles, Glory, Spirit, Substance, a close parallel to the Christian trinity.

The confessional and absolution were also distinctively Aztec, but they differed from the Christian confessional in this important particular: Confession was made but *once in a lifetime.* If the penitent transgressed again he could not be absolved a second time, consequently it was usually deferred till late in life. The ceremonial was solemn and impressive, and if Sahagun describes it literally it represented a very high order of piety and a profound appreciation of the importance of the act.[3]

Baptism.—Sahagun describes in full the ceremonies attendant on the baptism of a child. They chose the most prosperous "house" in the sign for the ceremony. It was a day of feasting for all the friends of the family "y tambien á todos los niños de todo el barrio," "and likewise to all the children of the quarter." The boy faced

[1] A. V. Williams Jackson, *Zoroaster*, pp. 61 ff. For prophecy of Messiah same author, *Biblical World*, August, 1896.

[2] Conway, *Solomon and Solomonic Literature*, p. 186.

[3] Sahagun, *Cosas de la Nueva España*, Bk. V, cap. vii.

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the *west* and drank of the water. The fingers of the officiating personage (midwife) were dipped in the water and touched to the child's mouth.[1] The ceremonial differed slightly for girls.

Births.—At the birth of an Aztec child the astrologer or *naualli* was always consulted regarding his star and the auguries. The Parsīs call the astrologer on the seventh day after birth.[2] In fact the Aztecs consulted the *naualli* on the most trivial occasions such as the hooting of an owl near the house. At the birth of Louis XIV, the astrologer Morin de Villefranche was concealed behind the curtains to cast the nativity of the future monarch. An Aztec book of magic was called *tonalamatl* from tonalli and *amatl*, paper. Tonalli is cognate beyond question with Hindustani, *tonhā*, a magician. The Aztecs called a magician *naualli*, which may be derived from the Sanskrit, *nakta*, night; Latin, nox; and *vara*, the time or turn of a planet. Or it may be connected with *naui*, four as a "sacred" number in magic.

Marriage among the Aztecs was a matter of great importance. At the marriage of a son the old women "go-betweens" were employed just as in the Orient today. They sought out the parents of the girl who was the preference of the parents of the young man and obtained their consent. Then the *telpuchtlato*, a sort of pedagogue who had charge of boys, brought home the son to his parents and in a speech formally resigned his charge and delivered the boy into the care of his parents, laying at his feet an axe as a sign that the tie between himself and the boy was severed. A feast followed for the *telpuchtlato* and all the boys under his charge. The groom's friends

[1] Sahagun, *Cosas de la Nueva España*, Bk. II, cap. xix.

[2] *Encyclopaedia Britannica*, article "Parsis."

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went by night to bring home the bride. There was a torch-light procession in which all the friends joined. Among the Parsīs today the procession is formed at sunset. The bride and groom were seated by a fire (the Parsīs light a lamp) in the center of the hall in the groom's home. The mother of the groom laid at the feet of the bride richly embroidered underclothing and the mother of the bride put on the shoulders of the groom a handsome *uipilli*, tunic, and laid a richly embroidered *maxtlatl*, belt, at his feet. Then the *titici*, "wise old women" in this case, tied a corner of the groom's tunic to a fold of the bride's, and the ceremony was complete. The Parsīs tie the right hands of the bride and groom with a silken cord, winding it round their bodies. Feasting and dancing followed.[1] The entire ceremonies occupied several days. The points of resemblance between this Aztec ceremony and the marriage ceremony in India to be specially noted are these: in India the *hearth-fire* plays the same important part and the bride and groom sometimes are *tied* together with straw of the "sacred grass."

Burial customs.— Mr. Tylor says the burial customs of the Aztecs may be adequately illustrated by the ceremonial of burying a king. The corpse lay in state invested in the mantle of his patron god. The deceased was furnished with a jug of water, some pieces of cut paper (see *Amaquemecan*), and garments to protect him from the elements on his journey, and a dog was sacrificed to accompany him. In earlier times the body was buried sitting upright[2] surrounded by slain attendants, later it was burned on a funeral pile with accompanying sacrifices

[1] Sahagun, *Cosas de Nueva España*, Bk. II, cap. xix.

[2] *Galla*, daughter of Theodosius the Great, thus sat in state for more than a thousand years in her mausoleum at Ravenna.

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of attendants. The Ptolemaic Greeks also equipped the dead for their long journey—in one case a coin, a staff, and a *book*. Ibn-Foslan, an Arabic traveler in Russia in the ninth century A. D., describes a burial which is almost a duplicate of the Aztec, but in the case of the Slavs a man and a woman *volunteered* to accompany the dead, and a *horse* was sacrificed.[1]

Deities common to Mexico and Asia.—It has been said that the Nahua had no general name for god. This is a mistake. Their generic name for deity is *teutl* or *teotl*, a god, any god. It is cognate with Sanskrit, *devatá;* Hindi, deotá; Latin, *deus*. As may be seen by these comparisons the Christian religion is largely Aryan in origin rather than Judaic which may be accounted for by the protracted captivity of the Jews at the court of Persia. But future investigations may establish the fact that the Aryans borrowed their religion from Turanian sources.

NAMES OF A FEW OF THE DEITIES FOUND IN AMERICAN LANGUAGES

This list is not given as absolute, or complete.

Uitzilopochtli, Sanskrit, bhaj, bhaga; Persian, Baga; Russ., Bog; Algonquin Mana-*bozho*.

Quetzalcoatl, Babylonian Hoa or Koa? the serpent-god, also Turanian serpent-god.

Tetsauitl, a prodigy, Sanskrit, dasá, evil demon + *vid*, to see.

Manit or *Manitou* = Ma + an-it, Anna, Ana, Anu, Babylonian, Turanian, Aryan.

Nanepaushadt, apparently Na, Anna or Anu, and Baga. *Nepau* is possibly Nebo and Anna, Babylonian; Egyptian Anu-p(?), the hawk, which involves a confusion of names with the order reversed; compare, Egyptian Pasht, the cat-god, Nebehat, and Hat-hor.

[1] Alfred Rambaud, *History of Russia*, Vol. I, p. 40, Eng. translation.

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Tlaloc, the Mexican Indra (see chap. iii). There were in all eight Tlalocs; compare the *eight loka-pālá*, "world protectors" of the Vedas.

Siva, Sanskrit, "the gentle one;" ciuatl, a woman, Mexican.

Sarva, Sanskrit, another name for Siva, perhaps Xelhua, who built the pyramid of Cholula.

Tecuiztecatl, god of the sun, Dag-on (?). Said to come from *dag*, a *fish*, but is a *crab* in Mexican, but better Sanskrit, *daghs*, Mexican, tekis, + *teca*, "fire care-taker," i. e., the sun.

Tlacatecolotl, "the man owl" (see chap. vi).

Uitznauatl, god of condemned slaves, Vishnu (?) or Sanskrit, vish, plebs + nauatl.

Ozomatli, "the divine monkey," Sanskrit, vṛshá-kapí (see chap. vi).

Chon, Peruvian, Vul-*can*, Baal-*can* (Falb).

Conn, an Irish god or giant who overwhelmed his enemies with *snow;* Algonquin, *kon*, snow; also Turanian of central Asia.[1]

Nanauatzin, Mexican moon-god, Ana. (See Nanepaushadt above, also *Mexican in Aryan Phonology*, n. 12.)

Tezcatlipoca, Mexican devil; compare universal Aryan bad-luck legends connected with the looking-glass (see chap. vi).

Tonantzin or *Teteo innan*, Mexican, "mother of the gods," Vedic, *Aditi*.

Ipal nemoani, Babylonian Bel? Nebo-Ana?[2]

Remarks.—At the festival of the Aztec god *Xipe* the victims were *flayed*. Clavijero relates a horrible act, the flaying of a maiden who personated "the Mother of the Gods." *Cybele* was the *mother of Zeus* and was closely associated with *Marsyas* who was *flayed*. *Mani*, founder of the Manichaeans, was *flayed* Hence flaying may have been a religious rite rather than an act of cruelty. *Xip*-e may be *Cyb*-ele.—Compare *Mana*-bozho with *Mánú* rabbá, "the Great Spirit of Glory" of the Mandaeans.

[1] See the account of Sergeant Bagg's combat with the "Fairy Man" which was suddenly terminated by a blinding snow-storm. *Lav-engro*, chap. xii, George Borrow. Also see Marco Polo's and Fa-Hien's account of the dangers of the desert of Gobi. The latter speaks of dragons that spit sand-storms and *snow-storms*, time, 402 A. D. *Dawn of Modern Geography*, Vol. I, pp. 479, 480.

[2] The number of deities in the Mexican pantheon was thirteen major, two hundred minor. Prescott, *Conquest of Mexico*, Vol. I, p. 58.

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CHAPTER XVIII

Aztec Civilization not Indigenous—Home Land—Learning and Arts—Domestic Life—Education—Ethics of Their Religion—Priests—Economics and Government—Cannibalism—Nahua Disposition and Courage—Influence of Superstition on the Conquest.

One thing is certain. We must dismiss all notion that the Nahua developed an indigenous civilization on American soil in spite of assertions to that effect by prominent writers. They distinctly inherited the old Aryan culture of western Asia. Whatever may be said of that, may be predicated, with modifications perhaps, of the people of Anahuac. These people were not barbarians. They may be classed with the Vedic Hindus and the Greeks of the Homeric age. The Aztecs could never have been on as low a plane as the northern savages, such as the Eskimo, or the Athapascans. To give the beginnings of their culture is then to restate the beginnings of the most primitive Aryanism which is perhaps today best illustrated in Kafiristan and the Hindu Kush region.

Home land.—According to tradition the original seat of the Nahua was a land of cheer, and they dearly loved that land as their traditions testify. It was a beautiful land of forest, stream, and savanna, a glorious land; but this may be the myth of an Eden. They or their neighbors were builders of cities and of imposing edifices. They had wealth, considerable wealth, as *xiquipilli* and *cuiltonoa*, to prosper, testify. The *xiquipilli*, a purse, contained 8,000 pieces. Who but a commercial people would have occasion to handle such a sum of

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money? Were the standard but five cents it would equal $400. They had *two* names for *merchant*,[1] and a verb meaning *peddle*, all indicating an established commerce.

The word *macehualli*, servant, vassal; Hindustani, *wallah*, may indicate that the Nahua in Asia held slaves or lived under a feudal system, according to the universal custom of the age. But the local conditions in Mexico may well have brought *cuiltonoa* and *macehualli* into use.

Learning and arts.—The Aztecs understood to a certain degree the science of astronomy. Their ancestors revised the calendar years before it was revised by Julius Caesar (see p. 139). At the time of the conquest it was practically correct, while the reckoning of the nations of Europe was wrong by about ten days.

The Aztec gold- and silversmiths produced beautiful work which was highly prized and eagerly sought by the Spaniards for its artistic value. The Aztec *feather pictures* were unique in kind and admirable in execution.

The Nauatlaca had written records in picture writings which were called *tlacuilolli*. That these writings were capable of sustained narrative cannot be doubted. But the Spaniards destroyed most of these writings and the knowledge of their accurate interpretation has been lost.[2]

Domestic life.—In favor of their home life much may be said to their credit. The Nauatl language abounds in terms of endearment such as "my dear little son," "my jewel," "my esteemed wife," or "honorable wife." Friends were always addressed by the term *tzin*, honorable, or *icniuhtze*, friend. It may be said in objection that oriental courtesy is a mockery, and the free use of

[1] The word *ozto*-mecatl, merchant, is plainly connected with oztotl *cave*. But in Russian *ust* means mouth, opening, thus the word must have meant not only cave but the *open front* of a shop in the bazars. (See Chicomoztoc.)

[2] On one occasion a bonfire of MSS, lasting several days, blazed in the streets of Tezcuco.

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"honorifics" a mark of servility. But the same criticism has been made regarding French politeness by people who have much less real politeness than the French. Etiquette may be abused by sycophants and knaves, but etiquette was not invented for sycophants and knaves.

It would be wholly foreign to my work to go into lengthy details of the domestic life of the Nahua—dress, customs, cuisine, music, education, art, books, etiquette. I have confined myself rigidly to one purpose—to show the connection of these people with the people of Asia.

Education.—The greatest care was bestowed upon the education of children as evidenced in the "Address of a Father to his Son," and the "Address of a Mother to her Daughter." In the latter the consequences of infidelity to the marriage vow are depicted with great force and striking realism. The telpuchtlato had charge of boys (see p. 159).

Festivals.—They had feast days and holidays on which everybody turned to play and rejoicing. Flowers they greatly loved and the feast of *xocouetzi*[1] was consecrated to the apple tree, *xocotl*, which Siméon thinks was the *malum* or apple of the Romans. The religious festivals, it is true, were sometimes marred among the Aztecs by revolting human sacrifices, but some of the other tribes looked on this custom with horror.

Ethics.—This last remark brings us to consider religion (already treated at some length), than which no other human institution is more easily misunderstood by foreigners. Much has been written about the sanguinary and monstrous god of war, *Uitzilopochtli*. But as I have shown (chap. xiv), his name means simply "the Giver," though the irony of fate converted him into a devil.

[1] The month *Xocouetzi* extended *circa* August 17 to September 5.—Siméon.

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The god *Tlaloc*, "Lord of the Terrestrial Paradise," was a New-World Indra (see Indra, chap. iii). He was the beneficent giver of rain and the source of agricultural prosperity. He contended with the adverse spirits of heaven. The Aztec Venus was perhaps identical with the Greek and Roman Venus, simply a goddess of pleasure. The world practices her cult today, dispensing with the formality of announcing a cult and appointing a patroness.

Priests.—The Aztec priesthood formed a distinct and powerful caste. They apparently possessed unbounded influence over the people. Doubtless they differed in no respect from the priesthood in all ages and all countries—some were sincere, good men, others took advantage of their sacred calling for their own advancement and profit.

Economics and government.—I shall not go into the question of Aztec internal polity, form of government, and land tenures. That has been done well already by others.[1] But this question inevitably arises: Why did not the Aztecs, and other Indians as well, rise to the condition of a stable civilization and a well-ordered state? This question has nothing to do with philology and I shall give my opinion in a line. They lacked *beasts of burden and a reliable, abundant food supply.* The Nahua had corn (maize), squashes, perhaps sweet potatoes, native fruits, including the banana, seven kinds of tomatoes and chocolate. But they lacked three things essential to a high civilization. *Wheat* (or rice), *meat*, and a *root crop* capable of preservation.

Cannibalism.—With respect to human sacrifice and the attendant cannibalism, Aztec character has been

[1] Notably, Lewis H. Morgan, *Ancient Society*, and A. F. Bandelier, *Peabody Museum Report*, 1876-79.

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painted in the blackest colors. Some of this color or bias at times sprang only too evidently from bigotry, again from ignorance of the subject in its broader aspects. I make no defense of this monstrous rite as it was practiced by that unfortunate nation. Their excesses were revolting. But to my mind there appears to be some slight extenuation. All the human race once believed in human sacrifice and practiced it. It existed secretly in India within the memory of very old men lately living, indeed it may exist yet. The curious "horse sacrifice" still existed in Russia as late as the sixteenth century.[1] It may have been a Vedic survival but there was also a "horse sacrifice," *aswamedha*, existing in India. Animal sacrifice still exists in Kafiristan, in the Hindu Kush region. If the whole world once believed a thing, why should the last man to believe it be crucified?[2]

It is said that the Aztecs introduced human sacrifice only about two hundred years before the conquest, according to Clavijero.[3] But this, as stated in chap. xvii, is doubtful. It was the act of a decadent tribe, an atavism, which led in the end to the most dire consequences. The effect on Aztec character was fatal. From bravery they passed to bravery plus heartlessness. It is generally conceded that the lack of an adequate *meat supply* greatly aggravates the practice of cannibalism, and the Spaniards also felt this need. They killed and ate the native dog *itzcuintli* until they exterminated him.

This feature of Aztec religion reacted on their civil polity. Instead of cementing their empire by a wise

[1] Max Müller, *Mythology;* also Alfred Rambaud, *History of Russia*, translation of Lenora B. Lang, Vol. I, p. 40. As to the present existence of human sacrifice in India, cf. Jastrow, *Religions of India*, p. 529, and Hunter, *Encyclopaedia Britannica*, article, "India."

[2] An authentic case of human sacrifice has occurred in Mindanao, P. I.; *Nation*, "notes," Nov. 12, 1908.

[3] Clavijero, *History of Mexico*, Vol. I, p. 120.

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policy of organized assimilation, which the Romans, of all people, best understood, they conquered for the sake of fighting, for spoliation, and for the purpose of obtaining victims for their abominable sacrifices. Thus when the final crisis came their ill-organized state was resolved into its discordant elements, their allies became their enemies, and the only Indian state in North America became a thing of the past.

The Aztecs threw away the greatest opportunity ever offered to a people to found a new and magnificent empire on a virgin continent. But if we believe in fate then fate so willed it. The Aryan brothers of the Aztecs, from Europe, equaled them in courage and excelled them in knowledge. The civilized Aryan of Europe had utilized gunpowder and *learned how to shoot.*

Nahua disposition and courage.—All writers appear to agree that the Toltecs possessed the highest civilization existing among the Nahuatlaca. They were not addicted to cannibalism and human sacrifice, so far as is known. Clavijero says of the Chichimecs: "With respect to their customs, they were certainly less displeasing and less rude than those to which the genius of a nation of hunters gives birth."[1] They worshiped the sun. Their life was simple, they lived on game, fruits, and roots.

The Aztecs certainly equaled the Greeks in bravery,[2] but they have been accused of deceit and treachery. By whom? By Christians who wreaked a horrible vengeance on the Tlascalan envoys; who burned Chimalpopoca at the stake; who pledged protection to Cauhtemoctzin and then hanged him; who resorted to trickery to get Montezuma into their power and then subjected him to

[1] Clavijero, *History of Mexico*, Vol. I, p. 120.

[2] See Henry Cabot Lodge, *As to Certain Reputed Heroes.*

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a bitter and unmerited humiliation; who won victory by the aid of *Indian allies* and then treated those allies no better than they treated the vanquished Aztecs. At times the simplicity and dignity of Aztec character stands side by side with that of the Greeks in their best days. Instance the death of Tlacahuepantzin, son of Axayacatl. Chimalpahin says simply: "Mo-yaomiquillito Huexotzinco yn Tlacahuepantzin."[1] He died in war at Huexotzinco. This simplicity of statement regarding the death of a prince is paralleled only by the Greek memorial tablets in the cemetery at Athens, "he died at Syracuse." How brief is martial glory!

The Tlascalans, on the other hand, rivaled the Aztecs in courage and ferocity.[2] But the Aztecs were distinctively the warriors of Anahuac. I have before compared them with the Greeks of Homer's time. They cut a large figure in their day. They gave *twenty-seven chieftains* to the world from *Uitzilton*, born 1087 A. D., to *Nanacacipactli*, the last Aztec governor of Tenochtitlan under the Spandards, died 1565 A. D.[3]

Influence of superstition on the conquest.—There was a current belief among the Nahua at the time of the conquest that the "end of the world," that is, of the present order of things, was approaching. Quetzalcoatl, "the Fair God" (white), had been banished from the country centuries before, or rather got rid of by his rival *Tezcatlipoca* under false pretenses. There was a tradition that he would return (with white men?) to reform his people and restore a better condition of society. The Mexicans sent a delegation to interview Cortez soon after his landing.

[1] Chimalpahin, *Annals*, Seventh Relation, year 1495.

[2] Without his Tlascalan allies Cortez could never have succeeded. Fatuous people who prepared their own destruction!

[3] Chimalpahin, *Annals*, Seventh Relation, year, 1565.

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Their report was: "*In aquin oquiçaco in teotl tonantiz, totatiz.*" He who comes (has just come) is a god, our Mother, our Father. There is no doubt whatever that the conviction that a long-standing prophecy was about to be fulfilled greatly facilitated the work of conquest by extinguishing hope, which gave way to a dire fatalism.[1]

It may be noted finally as a very remarkable fact that the followers of Zoroaster believed that this regeneration of the world would take place 3,000 years after Zoroaster. If we accept the date 1500 B. C. (some say 660 to 800 B. C.) as the beginning of the Zoroastrian era, then 1520 A. D., the date of the conquest, completes 3,000 years with sufficient accuracy. Lest this paragraph provoke a smile I will ask the reader to consider carefully and weigh well the entire case as made out in this book from first to last. He only is a competent judge who decides *after* he has weighed *all* the facts. Any other judgment is miscalled. Its proper name is *prejudice.*

[1] Montezuma consulted the king of Tezcuco concerning the *Tetzauitl* (p. 117). Montezuma, who had been a priest and was naturally of a gloomy disposition, believed it to be a dire omen. The Tezcucan was inclined to laugh at it, so they cast lots to see whose opinion should prevail and Tezcuco won! *Alea jacta est!*

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A Mexican-Aryan Comparative Vocabulary

THE RADICALS OF THE MEXICAN OR NAUATL LANGUAGE
WITH THEIR COGNATES IN THE ARYAN LANGUAGES
OF THE OLD WORLD, CHIEFLY SANSKRIT,
GREEK, LATIN, AND GERMANIC

BY

T. S. DENISON, A.M.

AUTHOR OF "MEXICAN IN ARYAN PHONOLOGY," "THE PRIMITIVE ARYANS OF AMERICA"

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A few special subjects found in their alphabetic order:

Aryan Affixes: *2a*, *aca*, *can*, *ic*, *ni*, *on*, *pan*, *qui*, *tla*, *tlan*, *(i)an*, *yan*.

Aryan, superlative, *izt-li*.

Augment, *o*, sec. 5.

Mythology: Mamaluaztli, Mexitli, Nanauatzin, Quetzalcoatl, Tecuiztecatl, Tetzauitl, Tlaloc, Uitzilopochtli, Uitznauatl, Xipe.

Passive, *-lo; r* in Latin.

Perfect endings: the *s-* aorist, *-x-;* the *k-* perfect, *3 ca*.

Personal Pronouns: *aca*, *ne*, *neuatl*, *nech*, *te*, *tech*, *mitz*, "ma," in *maceualli*, *maceua*.

"Reverencial," Aryan middle, *-li-a*.

S (z) as future sign, -x-.

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INTRODUCTION

In the year 1907 I announced in my "Mexican in Aryan Phonology" that Nauatl or Mexican is an Aryan language closely akin to Sanskrit and Avestan but more primitive than either, in fact Aryan of the proethnic period. In 1908 I followed up my work by publishing "The Primitive Aryans of America." This Vocabulary presents the witnesses themselves of my thesis, that is, the *living* words of a *living* language. To my mind the proofs in Comparative Philology may be named in three words, *etymology, meaning, syntax.* Historical proofs are merely records compiled to the best ability of the historian, but words are living, continuing witnesses. There is little or no proof to show that Sanskrit is an Aryan language beyond these three basic points. History is silent. Ethnology is incompetent. Even Mythology refuses to testify. What are the proofs that English is an Aryan language? History says that English is Germanic and the Germans were—what? Nothing certain until Comparative Philology showed them to be Aryan. Now the proofs are just as good that Mexican is Aryan as they are that English is Aryan. This incomplete vocabulary contains about 620 *radical* forms. The Aryan roots in English according to Fick are only 310. In this lexicon 94 per cent. of the captions have Sanskrit cognates.

Etymology is, I admit, sometimes uncertain and an unsafe guide in individual instances. I may quote here the opinion of Professor W. D. Whitney (*Encyclopaedia Britannica*, article Philology), who says: "On the whole the contributions of language to ethnology are practically

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far greater in amount and more distinct than those derived from any other source." Philological proofs rest in the aggregate, and the equivalence of two entire vocabularies could not happen as a coincidence unless we are willing to concede that a linguistic miracle has been wrought on the American Continent.

Professor Frederick Starr of the University of Chicago has well said (*American Antiquarian*, May–June, 1908) that my proposition is so clear and positive that mere shrugging the shoulders will not do in reply. He thinks Philologists should either accept my work or try to refute it. But radically new ideas make way slowly. I sent out gratis, a contribution to human knowledge, about one hundred copies of my "Phonology" to learned men and a very few periodicals. Of this number only half a score even acknowledged the receipt of the book. If I had found and excavated an ancient ruin in Greece or the Orient, and rescued a scrap of the Christian Gospels, or a few verses of Sappho, or some lines of Menander the fact would have been *cabled* to America and published all over the civilized world. But I find an *old Aryan language in America*, one that will throw a flood of light on philology, ethnology, mythology, and the fact passes unnoticed. Why?

The Indian question has some peculiar aspects worthy of note. It is a very hazy question. Thousands of books and articles have been written about the American Indians or in some way referring to them. Lewis H. Morgan has said (*Ancient Society*) that perhaps more has been written about the Aztecs than any other tribe of people that ever existed. And what is the result of all this writing? The habits, customs and traits of the Indian have been perhaps adequately set forth. But concerning his *origin*, his *religion* and his *ethnic* and *psychical*

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characteristics we, until lately, knew very little and we are still very much in the dark. Specialists connected with "Expeditions" or working singly have done most excellent work. But who reads it? It would seem that if a man announced that he had penetrated this mystery of the origin of a race and solved as regards one ethnic unit a problem which had endured for four hundred years, that he would be listened to eagerly, as one who had achieved something worth while. And his discovery, you might think, would be treated with respect and examined into on its merits. But those experienced in the ways of the world know better than to expect that he would get off so easily. They know that incredulous silence or caviling opposition is what great discoveries have invariably encountered. To employ the apt phraseology of a critic, they excite "hostile surprise." Anything which upsets old beliefs, and traditions which are hoary with antiquity and respected because nobody ever thought of questioning them, is sure to be opposed strenuously and with more or less hostility. Philology is no exception to this universal rule. The smug conceit of infallibility is a great satisfaction to a majority of mankind.

But how about the magazines and newspapers of America which nourish the flame that lights the world? Are not their editors always looking for *new* things? They continually say so. But "news" is not synonomous with "facts." Of all the periodicals I sounded on the subject of my discovery, and they were not a few, none would touch it with one notable exception. Mr. Cornelius McAuliffe, Managing Editor of the Chicago *Record-Herald*, heard my story and promptly promised to give it publicity. Two years later I gave him advance sheets of my book (*Record-Herald*, Jan. 8, 1909). I take

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this occasion of saying further that *The American Journal of Philology* (Oct.–Dec., 1908) gave my "Phonology" an adequate review from the pen of Professor Edwin W. Fay of the University of Texas. He pronounced my work "fundamentally sound" as far as I had gone.

The question arises: Why were editors so indifferent? For the reasons above named, *inertia, incredulity* and a hesitancy in assailing fixed beliefs, or they got bad counsel from a "Literary Adviser," a Phoenix who invariably rises from the ashes of precedent. Philologists, Ethnologists, Archaeologists, Encyclopedists, have been telling us for many years that the Indians are sui generis, *indigenous*, and could not in measurable time have come from Asia, that their languages are wholly unlike those of the Old World and are governed by *different laws of sound-genesis and growth.* These positive assertions were made, in the first place, by men who in preparing some general work of linguistics gave a brief study to a language and, without mastering it, attempted an analysis. They set down as *positive* what they should only have suggested as probable, or as what they believed. Subsequent writers have copied these statements, believing them to be truth and science, whereas they are neither the one nor the other. Hence the "unwritten law" that America is forbidden ground to the Comparative Philologist.

From all this we see that if an editor wants an article about Indians he can get a *safe* one from the encyclopedia or a western tourist with a camera much cheaper and easier than he could investigate mine. An article by a prominent American author dealing with the Indians lately appeared in a Magazine. It was simply "available," it contained nothing new nor of any special interest or value to anybody. What the people expect about the Indians and

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what they have usually had, is the picturesque, fine chieftains in war bonnets and paint, platitudes about "the pipe of peace" and "Minnehaha," "Laughing Water," with a thriller about the tomahawk to spice the whole, and some pictures which shall include a war dance or the snake dance. The poor redman, facetiously "Lo," has not been thought capable of entertaining so complex a concept as a religion with a creed and a ritual. In this connection to mention the "Great Spirit," in capitals, as a tribute to deity, was considered ample.

If the *origin* of the Indian was touched upon it was usually in a way that would have invited ridicule if applied to any positive science. There were traditions of "bearded white men" bent on proselyting, of daring navigators who left their native land never to return and who consequently *might have settled in America!* There were drawings and inscriptions on rocks which suggested similar survivals in the Old World.[1] There were traditions of a great deluge and coincidences of the Zodiac. The measurement of skulls is a scientific proceeding but the deductions are as yet by no means certain, and men who pretend to scientific accuracy have gone astray. They assert with positive assurance that they *know* that the Indians could not have originated in Asia. But these positive writers must submit to the rules of evidence and give convincing proofs. They have done the cause of Ethnology, History, and Philology real harm, since their reputation for learning impresses the world with the idea that they are sure of their ground. But when their *reasons* are sought one discovers little but plausible theory and adroit *specu-*

[1] On July 2 of this year (1909) I met on a railroad train a Mr. McNabb, civil engineer, of Salina Cruz, Mexico. He informed me that in the course of excavation there were found in that country, well modeled in clay, a hippopotamus and the head of an elephant. These objects were presented to President Diaz.

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lation regarding data which might admit of a different interpretation. I have avoided speculation except in a solitary instance and that proved wrong later on. Wherever I have ventured a guess I have always indicated the point as uncertain. I have striven not to deplete my *reserve*, that is, to be able to give still further proofs if needed until ready to give these *final* proofs. But apparently I got no credit for having any *reserve*. Perhaps justly, the public would not accept my word a step in advance.

I ask a reading of this Comparative Vocabulary because it *is scientific*, because it is *definite*, because it is *exact*, because it embodies much research, because it opens up a vast new territory to the philologist. I make this appeal not specially for my own sake, though I have contributed to the world's knowledge several years of my time without expectation of reward and at great personal sacrifice and expense. I appeal in the name of Science. Let competent linguists read my work. If it be found good let them give me credit for it. I may add here that a man of world-wide reputation writes me from an English university that my work is "*scientific*" (italics his) and the only scientific work ever done in that field.

I am repeatedly asked: "How do you get the Indians from the highlands of western Asia to Mexico?" This is a proper question, a pregnant one, but I scarcely think it is within my province to answer it. I am dealing with *philology*, with *facts*. Naturally I have given this subject some thought and I see no insuperable difficulties in the coming of the Nahua across the sea *in boats*, just as their annalists say they came.

In "The Primitive Aryans of America" I started to write a *popular* book, that is, one which any well-educated

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person could read, but it gradually grew more and more technical as I advanced. This work is intended for philologists and is strictly technical. But my work has all the time been *very difficult.* It must be remembered that I had no clews, no authority, and very little literature to work on. It should not be expected of me that I should define every detail with the precision attained in the classic languages which have been studied and exploited by philologists for a century. And I may repeat here what I said in the Introduction to "The Primitive Aryans of America," that this is not the place for hair-splitting discussions of vowel genesis and doubtful cognates. That may come later. There is no present way of determining vowel quantity with precision. Occasionally I give *two* forms from the same root. Such by-forms are found in all languages, and coincidence in exceptions is the best kind of proof. For example what could surpass the riot of forms exemplified in the Latin: olus, holus, helvus, flavus, fulvus, furvus, gilbus, all from the same root meaning yellow.

This work is not confined to *roots* alone. Formative syllables: suffixes, prefixes and postpositives have been determined as may be seen by examining such forms as: *ni, qui, c, on, (i)an, can, tla, tlan, pan, iztli, tzin, tontli, tçolli, potli.* Most of these are Primitive Aryan, some secondary of a later period.

To read a dictionary is not what may be termed exactly a pastime and no doubt only the serious student will read this one. Any Comparative Philologist, however, may decide in an hour's time as to the value of the work, and *it is not necessary to understand Mexican.* I have given correct definitions with cognates and phrases illustrating meanings and all the reader needs to do is to verify the

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comparisons. If any one thinks he is *too busy* to do this, let me say that I have always been a busy man. If I could spend several years at this work it might seem that any lover of linguistics would be glad to examine the results of my work.

This vocabulary contains nearly all the root forms of the Mexican language which has a marvelous power of building up compounds from basic themes. The only duplicates are the cases where two significant forms spring from the same root. I should like to be able to say that it contained *all* the radicals. It should contain them, but my health is such that I work under constant strain and but a very short day's work is mine. For this reason I have thought it best to publish installments from time to time rather than to risk total disability and have on hand a mass of material which nobody else would edit or proofread. Besides I still have much material on hand which requires my attention before it is ready for the printer. My work, I trust, may incite younger men to do as much or more for other American Languages.

I have no doubt that some of my comparisons may be found wrong in the end. It would be remarkable if *all* were correct. I make this admission well knowing that mean-minded persons may take advantage of it. Balzac has well said somewhere that men of mediocre minds watch eagerly for the omissions, slips and concessions of greater men and dwell upon them in order to score what they consider a triumph. This actually occurred to me in the case of review in the *Nation*. A pedantic Boston critic exclaims in alarm that I am doing violence to the "Aztec" language! that I have wrenched words apart regardless of lines of cleavage! He makes the astounding announcement that the "Aztec" sentence consists of

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a single word! If any moral is to be found in his screed it might be this: it is a good idea for a reviewer to read the book which he is about to criticise. Otherwise stock platitudes and meaningless generalities are safer.

As this vocabulary nears completion I am in receipt of a personal letter from Professor E. B. Tylor of Oxford University. He calls my attention to the Appendix of his book *Anahuac* published in 1861. To my surprise I find there a list of 64 Mexican words compared with Sanskrit. These comparisons are significant and some of them correct though made nearly fifty years ago. It is to be regretted that Professor Tylor did not follow up his work. A profound knowledge of Sanskrit and exhaustive comparisons will establish Mexican as one of the purest Aryan languages extant. The extreme antiquity of this tongue and its lucidity of word formation will render its study indispensable to the Comparative Philologist.

In conclusion, lest the reader may misunderstand me, I may add that the critical aspect of this preface does not reflect *complaint*. It is simply *history*. I welcome all sincere criticism whether favorable or unfavorable. Some of the matters mentioned here belong properly in an article for a Review or Magazine. But since I have so far been denied access to the ordinary avenues of publicity I have thought it well to put them down here.

T. S. DENISON

163 RANDOLPH ST., CHICAGO
Sept. 27, 1909

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MEXICAN GRAMMAR, ORTHOGRAPHY, PHONOLOGY

I. GRAMMAR

1. *Analysis.*—The Mexican language is one which presents many difficulties to the student. Its inherent complexity has been aggravated by the orthographical and syntactical rendition of the early Spanish Lexicographers and Grammarians. Olmos, the earliest Grammarian, tried to fit his "Arte" into a Latin model with indifferent success. Molina, the first Lexicographer, is partially responsible for the absurd idea that every Mexican sentence consists of a *single word* by his method of welding pronouns to verbs. A critic reviewing my work (see Introduction) accuses me of wrenching *sentences* asunder without regard to lines of cleavage. This critic would not be worth a passing notice were it not that men who write with authority have become partially possessed of the same error. They talk of "incorporation" or "encapsulation" when there is no such thing.

2. *The Pronoun—object and subject.*—Every transitive Mexican verb requires a *prefixed objective pronoun* and the action of the verb is directed according to the pronoun which is its subject-object combined. Thus *nino* gives the sense of the middle voice or reflects the action upon the subject of the verb. *Ni* is the subject, *no* the dative object, accurately speaking; *nite*, directs the action toward another person and *nitla* toward a thing. Molina and Olmos joined these pronouns to the verb when logi-

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cally they may be separated which would render reading much easier. For example *ticochtoc*, you are lying down asleep, might better be written ti-cochtoc; *ninotlaçotla*, I love myself, nino-tlaçotla; *nictlaçotla* in Malinton, I love Marie, nic-tlaçotla in Malinton. One might as well write in English, give me it, "gimmeit." There is no *incorporation* here.

3. *The possessive personal pronouns* have a peculiar use. A noun as head-word loses its *ending* when a possessive pronoun is prefixed, as, *tatli*, father, *nota*, my father, just as correctly no-ta. Adverbs are treated the same way, as, *nouic*, around me, no-uic. There are cases I admit where it might appear like straining syntax to carry this principle out, as *notenco nicmati*, I learn a thing by heart; *no* is my, *ten*, tentli word; *co*, in or by. I have followed Siméon's example and separated pronouns from verbs by a hyphen, thus, nic-mati. Hence I am not doing violence to the language as aforesaid hysterical critic imagined. The same rule applies in compounding nouns, as *atl*, water; *calli*, house; *acalli*, a boat.

4. *The postpositives*, such as qual-*can*, a good place; coati-*tlan*, place of snakes, need no special treatment. Some of them are Old Aryan, some are of later formation.

5. *The augment* is *o*. It is always separated from its verb by the pronouns or even by adverbial phrases, as *o*-timo-tlalticpac-*quixti*-co, already thou, earth-on, hast arrived (just come). Here *co* is a "desinence" indicating action just completed. The augment is usually omitted where its absence would not obscure the sense, as o-nicte-mac or nicte-mac, I gave it to someone, but o-nitla-qua, I ate it; ic cen o-ya, he has finally gone, is dead. Here it is necessary, as *ya* would be mistaken for the present tense. The augment is omitted in at least half the cases,

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and the same is true of Vedic Sanskrit (Whitney, *Sanskrit Grammar*, sec. 587).

6. *The "reverencial"* is a form of the verb which at times appears to be simply the Romance reflective verb, as, il se tait vite, he gets quiet immediately. This subject is purely grammatical. I give these forms here in order to show that I have not left certain affixes undetermined. The form, it may be seen, does not primarily indicate *reverence.* The endings are *lia* or *tia*, thus, nite-*tlaçotla*, I love some one; ninote-tlaçoti*lia* is the reverencial. In some cases *three* forms exist, as, nitetla-*maca*, I give something to some one, nitetla-maqui*lia*, -qui*lhtia*, -qui*tia*, reverencials; (see *vocabulary*, *-lia*, *-lo*).

7. *The passive* usually ends in *lo*, as *chiua*, make, passive chiua*lo;* tlein itol*o?* what is the news? *itoa*, to tell; but the passive of *mati* is macho or mat*iua;* of *ana*, take, analo or ano*;* *aci*, axo*a*, aci*ua*, axi*ua*.

8. *Connectives.—Ca* and *ti* are used to connect compound verbs. *Ca* connects co-ordinates, as acic*a*mati, to be wise, i. e., "attains and understands." *Ti* connects a subordinate adjective element, as eua*ti*ca, "seated is"; chapan*ti*uetzi, "stumbling falls." Final *que* must not be confused with these. It is merely a plural ending, as *ueuet-que*, the ancients; o-ticte-*maque*, we gave.

II. ORTHOGRAPHY

9. *Mexican Orthography* is arbitrary and confusing. The clumsy Spanish phonetics of the sixteenth century were inadequate to the demands made upon them. No accents are given to guide in pronunciation. Two spellings of the same word are common, as *yualli*, *yoalli*, night; *chopinia*, *tzopinia*, to sting as a snake, peck as a bird; *chichi*, dog, and *tzi-n*, honorific, both develop from

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dhi; cocoltic, lean, feeble, is also *çoçoltic*, which is significant since it involves the question of a sibilant or a palatal. The antique ç (s) is used for s, *z* for the soft sound. Some writers use these letters indifferently. The sound *sh* runs riot. It may be *x*, *ch*, *tz*, or, apparently, even *s* or *z; initial* it appears to be Spanish *ch* as in church, but in such a word as *tochtli*, rabbit, it may be *sh* (*x*, *ch*). Pimentel remarks: it is not the same as *ch*, but resembles it; Olmos says (*Grammar of Nahuatl*, p. 198) that it should be sounded like *x* in Latin *dixi*. It is simply English *sh*.

In regard to *h* there is much confusion; thus *uei* (Molina) or *huei*, large; *eua* or *ehua*, to rise. Molina was sparing in the use of *h*. Generally *h* appears to be simply a device to lengthen a vowel or denote the "saltillo," little stop, as *ahauia*, to take pleasure in, or *auia* (both Molina). The "saltillo" thus probably sometimes represents *aspiration*.

Prosthetic vowels occur frequently, as *e*leuia, *i*lhuicatl, *o*cuelin. This change has transferred to *i* many words originally belonging to other letters. It has literally robbed initial *s*, as *iciui*, from *su*, to hurry; *ilhuicatl* from Sanskrit, rocaná, heaven; eçotl, blood, from Sanskrit *su*, to press out; much rarer is *a*, as *alaua*, glide, Latin, lap-sus.

10. *Lost letters.*—Mexican has lost *b*, *d*, *g*, which fact renders positive differentiation more difficult. Whether *g* existed in the language at the time of the Conquest is a question discussed by Olmos (*Grammar*, p. 197).

III. PHONOLOGY

A. VOWELS AND DIPHTHONGS

11. Equivalence of vowels and diphthongs, Mexi-

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can, Greek, and Sanskrit, is exhibited in the following table:

Mexican.	*a*	*e*	*i*	*o*	*u*	
Sanskrit.	*a*	*a, i*	*i, a*	*u, v, a, ā*	*v,u*	
Greek...	*a, ε, η, o*	*ε, a, η*	*ι*	*υ*	*f*	
Mexican.	*iu, yu, yo*	*ui*	*ua*	*iui (u)*	*ai*	*ai, eu*
Sanskrit.	*u, yu*	*vi, va*	*va,(x)a,(x)a*	*u, (vi), iv*	*e*	*e, e+u*
Greek...	*υ, *jυ, ευ*	*fοι, fι, υι, υ, ω*	*fa- a*	*υι, *jυι, υ*	*αι*	

x indicates a missing *labial* or *r*.

12. *Variants.*—The pseudo-labial *u* performs a vicarious service: (1) it may represent a *labial;* as Mexican, *auh*, also; Sanskrit, *apí;* (2) a lost *g;* as Mexican, *uapaua*, get rigid; Greek, *πάχ-υς*; (3) a lost *r;* as Mexican, *xauani*, drip; Sanskrit, *saraná*, run; *caua*, stop; Skr. car; *πολέω*, to wander, stop.

The vowel *i* (*y*) may represent a lost *r* as in *quiyauitl;* Sanskrit, ghṛ, drip+ap, water, *ghī-ap-i-tl; *piaztic*, Sanskrit, prasiti-c; cf. Italian, *piacere*, for placere; Sanskrit, rishi; Pali, isi.

The change of *b, p* to *u* is of very wide geographical reach, as: Mexican, *auh;* Sanskrit, apí; Pali, vuddho; Sanskrit, buddhá; also of *r, l* to *u*, as *naua*, nara, or *r* dropped, *ozo*-matli, vṛṣa; *caqui*, hear *karki; (see 17); Old French, échauder; Latin, excaldere, scald.

The change of a *palatal* to *u* appears to be Indo-Iranian, as: Mexican, ua-pa*u*a, *πάχυς*; Panjâbi, *nēul;* Sanskrit, na*k*ulá, ichneumon.

The vowels *o* and *u* are often interchangeable, as *teotl* or *teutl*, god; *mochi* or *muchi*, much, all. This point is to be considered in vowel derivation. The long *a* of Sanskrit is regularly Mexican *o*. As to the *w-sound* in Mexican consult Olmos, *Grammar*, p. 197.

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(*a*) The pseudo diphthong *eu* may result from: (1) juxtaposition as *tleuana*, tle+uana; *neuatl* *nesuatl; (2) umlauting or strengthening, as *teuhtli*, dust; Skr. dhū; (3) a Sanskrit form direct, as *teutl*, from dív; (4) influence of a liquid or dental, as *eua*, Skr. ṛ; Lat. artus, orior; *eleuia*, lubh? or ṛdh? *eu* as an originial IE. form, *teuhctli*, a leader, from *deuk.

(*b*) *-uia*, *-iui*, *-oa*, verb endings are difficult to determine because of umlauting; thus *xeliui*, break, and *xeloa* are synonomous; in calpol*huia*, to convoke the *calpolli*, the sense demands Skr. *hu*, to call, *hu-ia;* but in *teuia*, to stone, from *tetl*, *hṛ*, to "handle" (stones) may be supplied though the sense does not require it; *xicoa* is Skr. sic +ra? pan*auia*, to excel, appears to be Skr. pan, admire, commend+*av*, to have pleasure in; or āp, to get, become. *Iciui*, to hurry, is plainly Skr. su; *tlapiui*, to grow, is from piv, *πίων*, fat. But Skr. hṛ, to be angry, develops in Mex. *qual*-a-ni; çā, *icau-ia* (*au*=*o*). Here *ia* is analogous to Skr. verb affix *ya*.

B. CONSONANTS

The Consonants are: *c*, *ch*, *h*, *l*, *m*, *n*, *p*, *qu* (*k*), *ç* (*z*), *s* (*ch*, *x*), *t*, *u* (*w*), *y*.

13. *Dentals.*—The only dental is *t;* *tz* is a development from *s;* *dh*, *d*, develop *ch* before *i*, *e*, *u*, as, *chiua*, do, from Sanskrit *dhā;* and *tz*, as in *tzicauastli*, a comb, dhṛ; *choloa*, to run, túrati. The dental is never *final* except in the perfect tense; it is dropped in verbs when final of *root*, as *paina*, he runs, *padna, *xini*, to cut, destroy *xitni; Skr. chid.

14. *Labials.*—The only labial is *p;* Aryan *p*, *b*, *bh* may develop Mexican *u*, as in *eleuia*, desire, from *lubh;* or the labial is dropped, as *coatl*, serpent, from *çubh*, to glide; tla-pāna, *tlauana*, drunk.

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15. *Palatal-gutturals*—only *c*, *qu* remain.

Initial they are: (1) hard as, *qual*-ani, angry; Sanskrit, *hṛnîte;* (2) become *u* with umlaut, as in *uentli*, an offering, from *ĝhu*, to pour out; but *k*, *g*, *gh* remain primitive more frequently than in Sanskrit, as, *conetl*, child; Sanskrit, jan, jána; (3) become *x* as, *xaua;* Latin, color. *Final* (of root)—the palatal is (4) dropped and *u* or *h* takes its place as *iyaua*, Sanskrit, yaj, *tiuh*-tli; Greek, *θυγάτηρ*; (5) becomes *ch* as tel-*poch*-tli, young man; tel-*poc*-a-tl, youth; Sanskrit, *piç*, to adorn; Latin, *pic*-tor; Mexican, *pich;* (6) remains primitive as, tla-*pic*, false; Sanskrit, *piç*-una; Greek, *πικρός*. A change analogous to the dropping of a guttural occurs in Sanskrit; compare yundhí, yungdhí with *tiuhtli*.

16. *Sibilants*, *ç* (*s*), *z*, *sh* (*ch*, *x*), *tz*, *tç*. *S* is *never* final except in the future and perfect tenses of verbs. The combinations *st*, *sp*, *sn*, *sl*, *ks*, are not allowable. Initial *ks* becomes *s*. *S* final (of root) may be dropped as, *moyotl*, mosquito; Greek, *μυῖα* **μυσ-ια*; Latin, musca, fly; *sv* becomes *s*, as *uitzilin*, humming bird, vi+svar; ma-*cep*-oa, my hand is asleep, ma+svap, to sleep. The explosive *tz* may derive from *s* as, *tzo*-mia, to sew; Sanskrit, *siw;* or from a dental as, *tzicoa*, to hold, detain, from Sanskrit, dhṛ, strong, but this *dh* may be *chi* as in *chicauac*, strong, from the same root. (See 12.) Sanskrit ç (k) is nearly always hard before *a*, *o*, *u*, soft before *e*, *i*.

17. *L and* (*r*).—*L* is never initial; *r* is missing entirely. *L* (r) may become *i* or *u*, or be dropped, initial or before a palatal or sibilant (sec. 12). But an original *initial r* may be preserved by a *prosthetic vowel* as e-*leui*-a, from *lubh; ilhuicac*, Sanskrit, rocaná. *R* is dropped before *s: auachtli*, dew, *oçomatli*, ape, *quechoa*, to stir, and

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elsewhere. *U* may appear even when *l* remains, as *iluiz*, Sanskrit, riṣ.

18. *Nasals* with a palatal are comparatively rare if indeed they are found at all. Compare *eca*-uaztli, a ladder, with Sanskrit, aṅkā; Greek, ὄγκος, English, angle; *aqui*, to be squeezed in, with *aṅgh, Greek, ἄχος, ἄγχω; Latin, ango.

19. *Modern Mexican* appears to differ very little from the language at the time of the Conquest, judging by recent writers. A few changes may be observed in the gospel of Luke, thus omo-*chi*, for omo-*chiuh*. In the latter form *u* was emphatic instead of *i*.

AUTHORITIES

A Bibliography here is naturally not to be expected. I have obtained words from all possible sources—Dictionaries, special articles, "Reports," Periodicals—in fact wherever they were to be found. A complete *Bibliography* of my investigations may be found in *The Primitive Aryans of America*. For a more comprehensive treatment of "Phonology," see my *Mexican in Aryan Phonology*. To Brugmann's *Vergleichende Grammatik* I am indebted for words not easily found elsewhere; to Siméon's *Nahuatl-French Dictionary* for numerous illustrative phrases. Molina's bilingual *Vocabulario* is of course a sine qua non in the study of Mexican. One must know Spanish before he can even begin the study of Mexican, and French is necessary to its successful prosecution. I believe my own is the first *analytic work* published in English. The *Nahuatl Grammar* of Olmos is available to students at a reasonable price, also Molina's *Vocabulario* edited by Julio Platzmann (Teubner, Leipsic, 1880). Unfortunately the reprint contains the typographical

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errors (not serious) of the original. Incorrect typography is a common fault with Mexican books. The *Dialogues* of Arenas, Mexican-Spanish-French (Paris, 1862), very valuable for their idioms, are a tangled mess. The book of Luke is still worse. The invaluable *Annals* of Chimalpahin Quauhtleuanitzin edited by Rémi Siméon are in parallel columns, Mexican-French. All of Siméon's work is done with critical acumen. It can not be too highly commended. I have felt seriously the lack of material. Books which I should have had I have been unable to get. The Vocabulary of Lanman's *Sanskrit Reader* has been very useful to me, owing to its concise form and critical scholarship. I also greatly regret that I have not been able to secure a competent linguist to revise my proofs. Through habit a writer may overlook his own errors and inconsistencies. But Mexican is practically an unknown tongue to the learned world and scholars are naturally averse to assuming such a responsibility.

The abbreviations employed are those in ordinary use and are self-explanatory, except: *Chimph.*, which refers to the *Annals* of Chimalpahin, *seventh relation*, unless another is mentioned; *Chimpo.*, Chimalpopoca; PAA., "Primitive Aryans of America;" MAP., "Mexican in Aryan Phonology;" *rev.*, reverencial (sec. 6); *cf.* is not always *asseverative;* enclosed references, thus (12), are to this introductory synopsis. I have used "Aryan" in the sense of Indo-European. All accredited illustrative phrases are of my own selection. In *spelling* I have followed Molina but in quotations I have retained the spelling of the author quoted.

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VOCABULARY

A

1 a, neg. particle, no, not; *a*nac, a + ni + ac, I am absent; *a*-nitla-caqui, I do not hear, or comprehend; *a*-ompa, not there, nowhere; Skr. a, an, Greek *ἀ*, *ἀν*, negatives.

2 a, affix (also, *e*), "abounding in" as, *tetl*, stone, *tetla*, a stony place; also *te(y)o;* quauitl, tree, *quauhtla*, a forest; Skr. ā, as *kṣam*, to be patient, kṣamā, patience; *sev*, to serve; sevā, service; Aryan affix *o*, *ā* is perhaps analogous; cf. OHG. tohter-ā, daughters (Brug., II, sec. 60); or Aryan, *tro*, *tlo*, locative affix, as; Skr. jani-tra-m, birthplace; Greek, *λέκ-τρο-ν*, "lying place," bed; following Mexican analogy *te-tla* is more probable than *tetl-a*.

aca, pro. indef., someone, anyone, alguno; cf. Aryan, *āka*, as in Skr. asmākam yuṣmākam; (Brug., III, sec. 456).

acatl, a rush; *acatl* xiuitl, name of a year in the Aztec calendar; Greek, *ἀκή*, point; cf. *ἄκ-jo-ς*, end; Lat. ac-u-s, chaff; Goth. ahs, ear of corn; OHG. ahil, chaff, beard (of grain); (see *yacana*).

achi, a little (more or less), *achi* ti-qualli in neuatl, thou art better than I am; *achi* centlacol, less than half; Skr. ádhi, over (surplus); (13).

achtli (in comp.), *ach*cauhtli, to lead, captain; *achto*, first; *ach*, Skr. ájąti; Greek, *ἄγω*, to lead; cf. Assyr. akh, highest; Cree, ach, active; Turk. agha, lord; (see *cauhtli*).

aci, to arrive, reach (with hand), chase; in aquin o-*aci*-co, he who has just arrived, especially to arrive at truth or knowledge as *aci*camati, to be wise; Skr. aç, to reach, attain; Greek, *ἦν-εγκ-α*, carried.

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aco, *ac-co(?) upward; Skr. ág-ra, top; Panj. acas, sky.

aço, açoça, açoçan, perhaps, doubtless; *açoçan* te [teo?] o-tic-cuic, perhaps you took it on your own responsibility (stole) (Mol.); *aço* quema macuilli, about five; *correl. conj.* with anoço, "either-or;" *aço* moztla ni-ual-laz *anoço* quin uiptla, doubtless I shall arrive tomorrow or the day after; Skr. á, an, neg.; Greek, *ἀ, ἀν* + sā, so, Greek, *ὁ, ἡ, το*; Goth. sa, so, thata.

acolli, shoulders; Skr. aṅgá? a limb, member; cf. aṅká, bend at hip in sitting, hook; cf. *col*, top. The *Acolhua* or *Colhua*, a Mexican tribe, "scarf over the shoulder people;" (PAA., p. 150, note).

acuetzpalin, water lizard; uei *acuetzpalin*, alligator; atl + cuet + spal-in; Skr. garta, a water hole + sphṛ, sphur, sphuráti, dart about; "water hole darter;" Greek, *ἀ-σπαίρ-ω*, struggle convulsively; Lat. sperno; Eng. spurn, spur; (r 12, 17); (see *cuetlachtli*).

ai, to accomplish, do, perf., o-ax; tlein *t'ai?* what are you doing? Skr. i, éti, go, *attain;* Greek, *ἴ-ναι*; Lat. ĕ-o, go, *succeed.*

alaua, glide like an eel, slip; Lat. labor, lap-sus, glide, slip; *a* prosthetic; (MAP., from laghú, Table D, less probable).

alco, an extinct wild dog; Skr. vṛ́ka; Eng. wolf; Lat. lup-u-s; cf. Skr. álarka, a mad dog, a fabulous animal.

altepetl, town; citadel(?), also king; altepetl, a mountain; Siméon analyzes atl + tepetl, "water mountain," irregular; *al* *alc, Lat. arx, arceō; Greek, *αρκέω*, ward off; *tepetl*, Greek, *τάφος*; New Per. tapah; Turk. Geok-*tepe*, a town in Russ. Turkestan.

altia, (1) to bathe; (2) to do business, sacrifice slaves (done only by the rich); offer gifts to a god; (1) Skr. ard-ra, wet; (2) ártha, object, profit, business.

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amatl, paper; atl(?) + mat-l; Lat. matta; AS. matl; Eng. mat; "a-matl," a mat made with water; or Skr. am, to press hard.

amolli, soap plant, root used for washing; *amolhuia*, to wash with soap; atl, water + *mol*-li; Skr. mūla, a root, "root used with water."

amomoloa, the water murmurs (Sim.); atl, water + momoloa; Skr. marmara, to murmur; Greek, *μορ-μύρ-ω*; Lat. murmur, murmuring, buzzing (bees); roaring (lion, thunder, the sea).

amoxtli, *amozg-tli, a plant of the Mexican Lakes (hence, papyrus?), atl + *moxtli*, a *book;* Skr. májjati, to duck under (water); Lat. mergus, submerged; OBulg. *mozgŭ*, marrow, "inside;" (see temascalli).

an, pro. per., 2d plu. nom.; *an*-te-tla-yecol-tiâ (-ye-culhtiah [Olmos]), you serve some one: Skr. pronominal roots, aná, ena or ami.

ana, take, seize, undertake; nic-*ana* in no-tequiuh, I undertake my work; nic-*ana* in espada, I draw the sword; Panj. *an*-na, to bring; cf. Skr. nī.

anca, intensive particle; cem-*anca*, very greatly; Skr. (té) *aṅgá*, they only.

ano, not, no doubt same as *amo*, not; often *a*, as *anac*, I am absent; (a + ni + ac); *a*-tlacatl, ill-mannered; Skr. *a* or *an;* an-açvás, without horses; Greek, *αν-ιππος*; with *ço*, *anoço*, which see; *amo*, 1 a + Skr. mā, not.

anoço, anozo, correlative conj., nor-neither, or-either; introductory alone, or with *âço* or *amoça; anozo* aquin zoatlacatl qui-pia matlactli tomin, or what woman who has ten pieces of silver (Luke 15:8); *anoço* oncan *amoça* in cecni cana, neither here nor anywhere else (Chimph., *Annals*); these conjunctions may change places; aço-anoço, or anoço-amoça.

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apana, *apanta, to gird self; to wrap self in a mantle; Skr. bandh, badhnáti, bind, tie, put on; Lat. fĭd-is, a string; Eng. band, bind; *a* prosthetic doubtless through influence of *bh.*

aqui, enter a hole or place, put on *tight* clothing; tla-*actica*, submerged, overwhelmed, to owe; Skr. aghá, distressful; anhú, narrow; Greek, ἄχος; Lat. ango; Ger. engst.

atemitl, a louse; tec? + mitl; for *tec* see *tecpin; mitl;* AS. mīte, a species of insect; Goth. maitan, to cut; cf. Greek, τομή, a "cutting;" or *tem*-itl, from τέμ-νω, to cut.

atl, water; cf. Skr. ud, unátti, to bubble up, flow; Slav. voda; Greek, ὕδωρ; Eng. water; *a* for *ua;* drops *t* of root in compounds.

atlapalli, a wing, leaf; a-tla-tl, Skr. tṛ, to cross + pal-li; *pal*, bhṛ, to bear; cf. Skr. spṛ, sphur, sphurati, to make a quick, jerky motion; parná, wing; Lith. sparna; Eng. fern; (for *s*, see *acuetzpallin*).

aua, scold, quarrel, divorce a wife; Skr. áva, away, off, "to separate."

auachtli, atl + *uach*-tli, dew; *uach;* Skr. vṛs, várṣati, it rains, or to pour down (for r, see 17); *auachia*, to sprinkle, the same; or aua + chia, *aua*, Skr. āp, water; Lat. aqua + dhi, to put, to place.

auh, and; illative, then, also; Skr. apí, also, but; Lat. *amb-*, both; Greek, ἀμφί.

1 **auatl,** a woolly caterpillar; Greek, ἀώ-το-ς, wool (Brug., II, p. 229); Skr. ūrna; Eng. wool, *ol-a-tl.

2 **auatl,** a thorn; a + uat-l; Skr. vyadh, vídhyati, to pierce; Lat. di-vid-ere.

3 **auatl,** evergreen oak, grove of such oaks; perhaps Skr. *áva*, a protector. The cypress and the ceiba tree were called "protectors;" cf. ósadhi, "herbs."

auia, have enough, be content; Skr. av, ávati, favor,

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have pleasure; Lat. avēre, ave Maria; *auiani* calli, casa puta.

auiliui, to ruin self, indulge vice; a+uiliui; *auil-*popoloa, to be prodigal, waste; Lat. vilis, vile, cheap, common; cf. Skr. ávara, vile; *iui,* perhaps to join to, Skr. yu, to attract; but influence of *l* may cause this form from root *vil;* (see 12 b).

axcaitl, in comp., *axca,* "property;" *n'axca* (no+axca), mine as pro.; Skr. aç, to obtain+*ci,* to collect, get; Púkhto *ash*-ya, possessions; cf. Avestan arth-ra, which by change *rt* to *s* gives *ash-a,* goods; cognate *axcan,* now, "the arrived time."

axixtli, excrement, *axixa,* to evacuate bowels; to *urinate;* hence atl, water+Skr. çis, çināṣṭi, to leave, "leavings."

ayac, pro., no one; a+yac; *ayac* mo-potzin, no one is thy equal; Skr. ya, relative, originally demonstrative +ka, yaka-s (Whitney, *Sanskrit Grammar,* secs. 511, 521), "not any one," but may be made also from ayám, that one+ka (*ibid.,* sec. 501).

ayotl, a tortoise; atl+yotl; *yotl,* Greek, *ὕδρα,* **jύδρα,* hydra, water snake; Skr. ud; Lat. und-a; Eng. *ot*-ter.

aztatl, a heron (egret heron?), atl+sta-tl, "water stander," "wader;" *statl,* Skr. sthā, to stand; Greek (Doric), *στα-μεν;* Lat. stā-re; OHG. sta-n; AS. stand-an; Eng. stand.

C

1 ca, ligature, in compound verbs, as, acic*a*mati, very wise; ni-mat*ca*nemi, I go prudently; connects coördinates; Skr. ca; Greek, *τε, κα;* Lat. que.

2 ca, cah, oncah, verb denoting existence; Sp. *estar;* pres. ni-ca, fut. ni-ez, perf. ni-catca (ca+ti+ca), impers.

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yeloa; xiq'ilhuia ca nican ni-*ca*, tell him that I am here; itoca o-*catca*-ya Isabel, her name was Isabel (Luke); *oncah* tlaxcalli, there is bread; nitla'zcaltilli ni-*catca*, I was a neophyte (Olmos); the spelling of Olmos *cah* indicates a long vowel or final spirant; cf. Skr. çéte; Greek, *κεῖ-μαι*, to lie, be *situated;* root **κϵj*.

3 **ca,** *or qui*, sign of perf. tense; as, *tlaneci*, day breaks; perf. *o-tlanez* (Mol.); *otlanez*, *otlanecic-qui* (Olm.); *ni-ça*, I awake, *o-ni-ça-c*, I awoke; *panoa*, to cross a stream; perf. *o-ni-pano-c;* cf. Greek perfects in *k*, as, *λύω*, to loose, perf. *λέ-λυ-κα*; *ἑ-στᾱ-κα*. See *-x-* another perfect ending, *aorist* form; the *s*-perfects are more numerous than the *k*- perfects; some verbs have both forms.

4 **ca,** adv. ending as, *iciui*, to hurry; *iciuiliztica*, hurriedly; *ueca*, far off; *cenquiz-ti-ca*, entirely; Aryan suffix, *qa*, *qo;* Skr. dhā-ká-s, a receptacle; Greek, *θή-κη*; (secondary) Skr. anú-*ka*-s, coming after a thing; Lat. reciprocus, *reco *proco (Brug., II, sec. 86).

cacalli, *cacalotl*, a crow; Skr. kaka; cf. Khassi, kakaw; Chippewa, kankakee; Natick, kon-kon-t.

cactli, shoe; *caca-l-lot-l*, shell; Skr. kacaté, bind; Greek, *κίγλις*, lattice; Ger. hag; Eng. hedge; *lot*, Skr. rudh, grow; Lat. rudis.

calania, to polish; to rub one thing against another; cala + nia; *calhuia*, to eat corn roasted in the embers with little tongs made of cane; Skr. cal, cálati, stir, quiver, shake + nī, to direct, attract, bring to; *calhuia*, cal, kala, trembling + hṛ (?), to handle, swerve, fall off; Greek, *χείρ*, the hand; (see homonym in *tlatlacalhuia*).

calli, house; Greek, *καλ-ιά*, *καλύ-βη*, house; Eng. hall; Per. ekal'a, a Sassanide palace; cf. Assyr. ekalli (?), palace; Skr. çālā; Ger. hülle; Hawaiian, hale, house; Marquesan, whare; Samoan, fale; Tahitan, fare; Manihiki, falĕ.

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calpolli (pul), "house full," phratry; *pol*, (1) Skr. pṛ, pṛnā́ti, fill; Greek, *πί-πλη-μι*; Lat. pleo; Lith. pulkas, a crowd; Eng. full; (2) Skr. púr, city; Greek, *πόλις*.

calpulhuia, to convoke the calpulli (which see); *huia*, Skr. hu, hávate, *ĝheu, to call, invoke; (see 12 b).

camatl, mouth; Skr. cam, to sip; camasá, cup.

cana, a place; cecni *cana*, some other place; *cana* nitetlalia, I placed him somewhere; oftenest a *postpositive*, as qual*can*, a good place; miec*can*, many places; ax*can*, now; Skr. kam (?). Bartholomae conjectures this to be a primitive Aryan *locative*, and no doubt he is correct, but its meaning is *not* "at one's pleasure," from *kámas*, desire; (Brug., III, sec. 262).

canauhtli, duck, cana+uhtli; *cana*, Skr. haṁsá, goose; Greek, *χήν*; Lat. anser *ganser; Ger. gans+uhtli, Skr. vac, uktá, "voice of the goose;" (see *çaliuhtli*, *ixuiuhtli*); cf. haṁsaka, "little goose."

cantli, cheek; Skr. hánu, jaw, chin; Greek, *γέν-υς*; Goth. kinnus, cheek; Lat. géna, cheek; Ger. kinn; Eng. chin; cf. Natick, mi-shon, chin.

caqui, *carki (nino) be satisfied, (nite) heed another, listen to, (nitla, nic) understand, *heed;* aompa nic-*caqui*, I take it in bad part; ichtaca nitla-*caqui*, eavesdrop; AS. hercnien, heorcnian, listen, hear, give heed; OD. harcken, horcken; LG. harken, horken; Eng. hearken, listen, give heed to what is said; (17).

caua, quit, finish, stop, leave a thing, ma yuhqui xic-*caua*, leave it as it is; nic-*caua* in otli, I leave the road; Skr. car, cárati, move, wander, undertake, do a duty, commit an offense; Greek, *πολέω*, wander, turn, frequent, abide in, be employed, *πόλος*, a pivot; Lat. polus (astronomy), the *poles* of the earth; (12).

-cauh- (in comp.), teach*cauia*, to make one chief heir in

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a will; te-ach-*cauh*, an elder brother, the best; acalco teach*cauhtli*, ship captain; Skr. kavi, wise; Lat. cav-eo, cautious; Ger. schauen; Eng. show.

cauitl, time, weather; *quen* anqu'itta in *cauitl?* How does the weather look? what are the "probabilities?" (Arenas); Skr. çarád, summer, autumn, year; Avestan, sar^{e}ta, cold, cool; Lith. szaltas, cold.

caxitl, dish, porringer; Skr. caṣ-ka, a dish.

caxtolli, fifteen; cax + tolli; Skr. tula, a weight, *balance;* Greek, *τάλαντον*; *cax*, perhaps Skr. *kas*, to move, or çaç, renewing.

caxua, (nitla) to get flaccid, diminish, as taxes; *caxania*, (nino) have a relapse (sickness); *caxanqui*, a thing that is flimsy or badly put up; Skr. kaṣ, káṣati, to hurt; or kas, kásati, to gape, open.

ce, cem, one, Aryan, *sem; Lat. *sem*-el, once; Skr. sa, unity.

cea, cia, *ceg-ia, say, consent; Icelandic, seg-ja; OL. en-*sec*-e, tell; Greek, **ἐν-σεπ-ϵ*, tell; Ger. sag-en; (15); but may be Mexican from *ce*, one; cf. Skr. gṛ, call, speak; Greek, *γῆρυς*; Lat. garrio; Eng. call.

cel, *cel-li (in comp. only), alone, only "oneness;" çan i-*cel*, himself only, **cem*-li; Aryan, *sem, one; Skr. sa-kṛt, once; Greek, *μια *σμια *σ^{e}μία*; Lat. sem-el, once; Mex. ce, cen, cem, one.

celia, (ni) get; grow (as budding of tree); (nite) entertain a guest, nic-*celia* in sancta communion, I take the holy sacrament; *ceyotl*, marrow; *ce* + Skr. rā, "giving oneness;" cf. cinóti, ácet, arrange, construct, get.

cemanauatl, the world, universe; *ce* or *cem*, "one," often emphatic prefix; simplest derivation, *mana*, to be in a condition to remain, *ceman* + ti + oc, terra firma (large), the earth + *uat-l* + Skr. *vat-as, year; Greek, *ἔτος*, **ϝέτος*;

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Lat. vet-us, old, hence "the thing which has remained always;" cf. Skr. *vat*, an affix.

cetca (in comp.), no-*cet*-ca, a relative; Skr. satyá, real, trusty, faithful; cf. sadha or sahá, "oneness," community.

cetl, frost; *ceuia*, to freeze; *ceuiz* cauitl, cold weather (Arenas); *s* in adj. formed on verbal *iztli;* Skr. çyā or çī çyāyati, to freeze.

chalchiuitl, a large emerald, "blue or green;" chal + chiuitl; Skr. jalá, water; jalaja, "born in the water," a pearl + jyut, to be bright.

chantli, house, dwelling; Skr. kṣi, to dwell; kṣema, home; Goth. haims; Eng. *ham*-let; cf. Assyr. khin, cabin; Arabic, khan, an inn.

chapolin, cha + *pol*-in, a grasshopper; (1) Skr. chad, to "cover," wing + pol; (2) Skr. ça, ciçāti, whet, make eager, also to "spread" + pol-iui, to destroy; "the eager destroyer;" (see *içauia*, *poliui*).

chia, to wait; Skr. cikéti, to seek; cf. dhā, dadhāti, stand, remain; (for cognate, see *tlachia*).

chiauitl, a vine-grub, a viper; chia + uit-l; Skr. dhav, dhávati, run; Greek, *θέω*, **θεϝω* + vidh, vídhyati, pierce, hit; *chia* here, uncertain.

chica ce, six, *chica*, the increment after five; as macuilli, "handgrasp" + *ce*, one = 6; Skr. adhika, plus, redundant, as in ashtādhika-navati, 98.

chicaua, get strength, grow old; *chic-ac*-ti-c, strong or old; *chic*, Skr. dṛh, dṛṁhati, firm, enduring; OL. forc-ti-s, fortis; ac, Skr. aç or *añc*, "towards;" root, *dhṛĝh.

chicauac, strong; Skr. dṛh + vançá? "kind" lineage; (see *va*).

chichi, dog; *chi-chitia*, to give milk; Skr. dhā, dháyati,

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to suck; Greek, *θη-λή*, breast; Lat. fē-lo, suck; filius, "suckling"(?); Goth. daddjan, give suck; (13).

chichiltic, vermillion, bright red, colorado, redup.; Skr. çíl-pa, ornament, art.

Chichi-mecatl, a Chichimec, called in derision, "dogs;" Skr. dhī́-dhī́, "very pious," "the godly Chichimecs" (PAA., pp. 124, 131); cf. dhṛṣ, bold; Greek, *θρασ-ύς*; Lat. fastus; Goth. ge-dass; Eng. durs-t; (13).

chichinaca, redup., to have pain, as in wound; *chichinatza,* (nite) to cause another pain; chi (dhā) + Skr. naç, to lose; Lat. noceo, to harm (*k* or *s*).

Chicomoztoc, legendary place in the Naua migrations; chicome, seven + *oztotl,* cave; *ost, ust;* Russ. mouth, opening; once open front of a shop (PAA., p. 164, note); perhaps a by-form of Skr. vas, to dwell, stop in a place.

chimalli, a shield, chi + mal-li; Skr. mardha, fight, battle; chi = dhā, to put (on); *mal, *mel, a root cognate with mṛ, to crush; (see *Chimaltitlan*).

Chimaltitlan, defined (*Hand Book Indians,* Vol. I) "the place where prayer sticks were set up." The ordinary grammatical analysis is chimal-ti-tlan; here no doubt *dhī,* piety + *mṛd,* grace + tlan, "place" (see *quauhchimalli*).

chinamitl, hedge of canes, a fence; *chinan*calli, surrounded by a fence; Skr. dhāna, holding + mitl; (13).

chinoa, burn (as woods on fire); tla-*chinolli,* something burned; Skr. dī, shine; dina, bright; (13).

chipaua, to clean, purify, settle muddy water; Skr. dhā, giving, putting + paṇa, cook, but probably also to *purify;* Skr. pac, to cook, "perfect."

chiua, (nic, nitla) do, make; (nite) beget child; Skr. dhā, dádhāti, pp. dhita (Vedic), put, make, create, conceive; Greek, *τί-θη-μι*; Lat. ab-dō, put away; Eng. do; also, Lat. fa-c-io; root *dhē; (13).

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choca, weep, bleat, bellow, hoot (owl); Skr. dukhá, miserable; satisfies only to weep; (13); cf. çuc, to grieve.

choloa, run, flee; (1) Skr. tur, túrati, press on swiftly; involves the sibilization of *t* as in Hindi *nautch*, girl, from nṛt, to dance; (13); (2) dhū, run + ra.

chopinia, to bite (as snake), peck (as a bird); *tzopinia*, to prick; Skr. sū, suváti, to bring about, cause; Greek, *εάω*, **σέϝαω*, *συ-το* + Skr. bhid, bhinátti, cleave, split; Ger. beissen; Eng. bite; or dhā, for *su.*

ciaui, *ciasui, to be tired; (1) Skr. jas, jásyati, to be exhausted; very tired (*s*, 16); (2) çram, çrāmyati, to be weary; (for *m*, see *mayaui*).

cipactli, marine monster (zodiac), shark; *Nanacacipactzin*, grandson of Ahuitzotzin, of the Mexican royal line; "devourer of mushrooms," i. e., of the people's bread, because, as governor of Tenochtitlan, he did not oppose the exactions of the Spaniards (d. 1565); perhaps, Skr. cibu-ka, chin, "hammer head;" *ac*=añc, or aç.

citlali(n), star; Skr. stṛ, strew; Greek, *σίδηρ*; Lat. stel-la; Ger. stir-ne; Eng. star.

citli, rabbit, old woman, tia hermana de abuelo (Mol.), sister of grandfather; Skr. cit, cétati, to be wise, or sad, to sit. "The Great Hare" was a deity among the Algonquins, and the Mexicans linked the wisdom of the serpent and the woman in their *ciua-coatl*, Chief Judge; cf. sita, pure, white; sita-kara, white-rayed, the moon; the moon was also called in Sanskrit "rabbit holder."

-co, postpos.; Mexi*co;* Skr. ku, "land."

coatl, snake; Skr. çubh, to glide, to be beautiful; Quetzal-coatl, the "Fair God," fulfils both definitions; cf. Babylonian Hoa or Koa (PAA., p. 123, note 2); "snake charmer" priest; (Harper, *Assyr. and Bab. Lit.*, p. 4).

coa-tlaca, a meeting of nations; *coanotza*, (nite) to be

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convivial; *coatequitl*, public work; *coaunoque*, they are gathered round (the fire); *coamitl*, blackberry, "clustered;" *coa*, *coan*, general meaning "community," "together;" *kuom que; Lat. cumque, con? quoties*cumque*, however many times. Hence Ciua-*coa*-tl, the Mexican Supreme Judge, may not mean "woman serpent;" cf. *coatl*.

cochi, to sleep; Skr. guh, gúhati, to hide + çī, to rest, be quiet, "secluded rest."

cocolia, to hate; *cocoliztli*, the plague; Greek, χόλ-η, bile; Lat. cholera, gall; AS. cweal-in, destruction; Eng. quail; cf. Hung. gyūlol-in, to hate.

cocotl, the throat; Skr. gūhati, hides; Avestan, goaziti, hide, keep; Lith. gūsztà, brooding nest; hence "secret place."

colli (in comp. only), ancestor, to-*col*-huan, our forefathers; Skr. kulá, family, clan; Panj. *kul*, family; Sioux, kola, friend; Quichua, Kolla, name of a tribe.

coloa, bend, twist, go by a detour; Greek, κυρ-τ-ὸς, curved; Lat. cur-vo; Eng. curve.

colotl, scorpion; uitz*colotl*, a thorn; Skr. çalá, quill of porcupine, bristle of a hog; hence *col*-otl, "the stinger;" from corresponding *long* as çālá; (see uitztli).

comitl, *combitl, dish, cup; Skr. kumbhá, vessel; Greek, κύμβη; (14).

conetl, child (word used by the mother, as *pilli* is used by the father), young of animals, as canauh-*conetl*, duckling, "duck's child;" Skr. jan, jāyate, beget; *jána*, man; Greek, γε-γον-ώς; Lat. gen-ui; AS. *cen*-nan, beget, cyn; Ger. kōnig, king; Eng. kin, king.

cotona, cut, pick fruit; Skr. çat, çātáyati, cut, cause to fall off.

coua, (nitla) to buy; (ninotla) *couia* or *couilia*, buy for oneself; Skr. kṛ, kṛnóti or karóti, do, make; *kará*, doing, kāryá, business, work; Greek, κράτος; Lat. creo; (12).

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coyametl, a hog; *coyonia,* to pierce, bore through; Skr. çu, a hollow + yam, yayāma, to hold, offer; hence "the hole maker," rooter; but cf. çi-çu, young; *κύω*, be pregnant, "the prolific one;" or Skr. *çu-ya + mi, to measure.

coyauac, wide, "like a ditch or a window" (Mol.); *co-* + yaua + c; *co,* Skr. *çu,* to swell + *yam;* yáchati, to extend; āyata, extended + c; (for *m,* see mayaui).

cuechaua, *keshala, to soften, to wet; *cuechauac,* humid, rainy; *acuexatl,* a flood; Skr. kṣar, kṣárati, (1) to flow; (2) to destroy; Greek, *φθείρω*; (*r,* 12).

cuechoa, *kelchoa, to stir, grind thoroughly; Skr. kṛṣ, kárṣati, draw, pull, tear in pieces, tug, etc.; *cuecuechilia,* to shake a tree; (for *l,* see 17).

cuel, already; no *cuele,* çan no *cuele,* also; Skr. khál-u, now indeed.

cuenchiua, to till the soil; *quem-i-tl,* one's inheritance; cuen + chiua; *cuen,* Skr. khan, to dig; cf. kṣéma, home.

cuepa, to turn, exchange, make excuses, translate, (nite) turn one back; (nitla) give a reason; Goth. gib-an; OHG. geb-an; Icelandic, gef-a; Ger. geb-en; Eng. give; cf. *cui* + *pa,* verbal, "having."

cueponi, to pop, as nuts roasting; bloom, as flowers; to be resplendent, sparkle; Skr. kamp, kámpete, to tremble, to leap; to be bright, clear; cf. *cui* + pū, punāti; Greek, *πῦ-ρ*, fire; Lat. pu-t-us, pu-r-us, pure.

cuetlachtli, wolf; Skr. garta, hole + rakṣ, rakṣa-ka, "keeper," defender, or simply "living in a hole;" or rakṣas, "harm;" (see *acuetzpalin*); (12).

cui, (nino) esteem self; (nite) cohabit; (nitla, nic) take, take example of; Skr. grabh; later, grah, seize, take, master; learn; *cuicui,* redup., cohabit; (12, 17); cf. Goth. greip-an; Icelandic, grīp-a; Ger. greifen; Eng. gripe.

cuica, to sing; lit. to sing a song; i-*cuica* in tototl,

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a bird's song, melauac *cuicatl*, a song of the people; Skr. gí-r + gāyati, to sing; cf. Skr. kañkani, an ornament with bells; Greek, *καμάζω*; Lat. cano; Goth. hana, a cock.

cuichectic, blackish; Skr. kṛṣṇá, black + aç, attain or añc, "toward;" (*r*, 12).

cuiloa, write, paint; tla-*cuilo*-lli, a Mexican book; Skr. kṛtti, a hide; or kiráti, to cover with; Lat. oc cul-o, cover; Eng. hull.

cuiltonoa, to enjoy, to be rich, (nino) to own ranches; Skr. kṛt, verbal, "get" + dhāna, "having;" dhāná, grain (store of); root dhā.

cuitlatl, excrement; cui + tra; Skr. ci, "pile" + tṛ.

cuitlauia, (ninote) to take care of another; (nino) to be convivial, *-iltia;* Skr. ci, notice + dravya, "worthy," property, object; *cuitlauia*, (nitla) to *manure* the ground (*cuitlatl*); a curious instance of the contradiction in homonyms.

cuitlaxcolli, entrails; cuitlatl + skolli; Greek, *σκώρ*; dregs, *ordure;* Lat. scoria; AS. renscur, rainstorm; Eng. scour; (see cuitlatl).

cuix, interrog. particle, is there? is it? what? Aryan, kos; Skr. kás, kím, kā́; Lat. quis; Greek, *κῶς*, *πῶς*; Goth. huas; Ger. was; Eng. which.

cuztic, coztic, yellow; Skr. kāc, to shine, to be visible; kaçá, visibility from thematic noun with affix *ti* + c.

Ç (S)

ça, çan, çam, adv., only, but, *now* in sense of conclusion; *ça* ic nino-caua, [now] I have finished; *çaye*, before; *ça* yyo, çanio, this only; *çan* ye yo, that only; çayuhti, this time only; *ça* iz, near, "around here;" *çan* achi, but little; *çan* campa ualla, a stranger, lit. but whence comes he? *çan* cen (zacen), joined, "only one;" an elusive particle,

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limits to the matter in hand and excludes an alternative; Skr. *sa*, similarity, "oneness;" *se-m; (see *ce*).

çaçamaua, to revive, quicken, reanimate; redup., Skr. çā (içauia) + miv, to move; Greek, *ἀμείβω*, change; Lat. moveo; Eng. move.

çacamoa, to stir up the soil freshly, or to cut grass; çaca + moa (see çacatl); *moa*, Greek, *ἀμάω*, to mow; OHG. mājan, to mow; AS. māwan; Eng. mow.

çacatl, straw, grass; Skr. çāka, an edible herb; çā́khā, a branch.

çaliuhtli, *çaliuyantli*, a joint; tlanqua-*çaliuh*-tli, the knee joint; çal + iuh; *çal*, Skr. sṛ, glide, flow; sarit, a stream; Lat. Almo, *Salmo, a river; cf. Arabic, sâl, flow; was*sal*, to join; *iuh* *jeug; Skr. yuñjate; Greek, *ζεύγ-νυ-μι*; Latin, jungo; Eng. yoke; (15–4); or Skr. *yu*, to join.

çauatl, smallpox; Skr. çarva-ra (?), spotted.

çoa, *solga, unroll, extend, open (as book); nic-*çoa* in noma, I extend my hand; Skr. sṛj, sṛjáti, let loose, sárga, something let loose.

çoatl, woman; Skr. sū, press out, allusion menses? generatrix? (cf. *çubh*, fair); cognate, *ciuatl*.

çoneua, (nino) the growling of dogs and cats when excited; the cries of birds when alarmed; the roaring of rising waters; (nite) excite the people; çon + eua; *çon*, Skr. svaná, sound; Lat. sono; AS. swinsian, sound; Eng. swan (from its cry); (see eua).

çoquitl, *sloquitl, mud, clay; ço + quitl; *ço*, Skr. sru, srávati, to flow; Greek, *ῥέω*, **σρεϝ-ω*; Lith. srav-j-ù; Ger. stro-m; Eng. strea-m + ci, ci-ti, a pile; *çoquiyotl*, dregs.

çotlaua, swoon, die; Skr. sūd, sudáyati, put an end to, destroy + rā, "giving."

çuma, (nino) to be annoyed, to frown; *çumal-e*, en-

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raged, courageous; Moteuhczuma, Montezuma, "he frowns like a lord," en grand seigneur; Skr. çuṣma, bold, impetuous, violent; cf. çū, to be superior; *cu*, a temple.

E

ecatl, air, *ehecatl*, a spirit; Skr. ej, éjati, to move, stir, tremble.

ecauaztli, a ladder, (depalo?) perhaps a green sapling trimmed to leave short prongs; eca + uastli, *eca*, Skr. aṅkā́, a hook, angle; Greek, ὄγκος; Lat. uncus; AS. ongel, a hook; Eng. angle; *uastli*, "furniture," Skr. vas, vā́ste, to put on; Greek, ἑ-έσ-το, had on; Lat. ves-tis, garment; (see *tzicauastli*, *teponastli*).

eçotl, blood; *çoa*, bleed; Skr. su, sunóti, press out; *sutá*, extracted, soma juice; *e*, Skr. éta, quick, rushing(?).

ecuxoa, to sneeze; (see icuxoa).

1 **el,** in comp. often and as an independent vocable; Skr. ṛ, ṛṇóti; (see under *3 el*, infra).

2 **el,** to be diligent, careful, solicitous; nel (ni+el), I am diligent; Skr. ṛ, álam, adequate, fitting, ready; av-alam-kṛta, well adorned; for *el*, also, see *eli-micquini*.

3 **el,** the liver (tel, "our liver"=to+el), *elpantli*, the breast; Skr. ṛ, ṛtá, "fitted;" Lat. ar-t-us, fitted, close, narrow + pan, "place" + tl.

elcima, to choke (with food); 3 el+cima; *cima*, to hackle and clean maguey fiber; Skr. snih, to stick, *sin-a, *cim-a.

eleuia, desire; Skr. lubh; Greek, λίπτω; Lat. lubet, libet; AS. leōf; Eng. love; Ger. lieben; (14).

elimicquini, tiller of soil; eli + micqui; *eli;* Greek, ἀρόω, to plough; Lat. ăro, to plough; Goth. arjan; AS. erian; Eng. to ear (obs.); *mic-qui;* Skr. miç, to mix; Greek, μίγ-νυμι; Lat. misceo *mic-sk-eo; AS. miscian;

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Eng. mix, for misk; ărya (Aryans), caste name of the householders, cultivators of the soil.

elmimiqui, to be a stammerer; *elmimicqui*, a stammerer; el+mim; *el*, ṛ, artus; Greek, *μίμος*, a mimic, comic actor; *μιμώ*, an ape; Lat. mimicus, mimic, actor +qui, kṛ.

epatl, a skunk (mephitis spilogale putorius); e+patl; Skr. pátati, pour out, shed (water), throw, etc.; *e*, Skr. éta, quick, rushing; or *as*, to dart.

-etz- or *-yetz-*, reverencial "to be; "to-tatziné in ilhuicac timo-*yetz*-tica, Our Father, heaven-in thou art (Lord's Prayer); Skr. as, to be; Greek, *ἔσ-τι*; Lat. es-t; AS. is; Eng. is; (see ni-*ez*, under *2 ca*).

eua, ***era*, rise, go, flee, attack; *eua*-ti-ca, seated; Skr. ṛ, ṛnóti, join, "go for;" Greek, *ἐλ-θεῖν*, to go; *ὤρ-τω*, risen; Lat. or-ior, rise; Eng. run, ran.

euatl, bark of tree, skin of animal; *esuatl (?); Skr. aç, portion, part + vyā, to weave or wind around, as a robe (for *s*, see *moyotl*); or ṛ, *eua*, "joined."

euhteua, (nino) rise from bed in haste; (ni) depart suddenly, eu + ti + eua; Skr. i, éti, go, aya, going; āyú, lively; cf. Greek, *ἠΰς*, active.

euia, to animate or encourage another, give food; Skr. edh or ṛdh, to thrive; *eduia *elduia; Greek, *ἄλθω*, "grow;" (see *eleuia*).

exotl, a green bean; Skr. aç, eat; Lat. esca, food; cf. Natick, ask-e, raw, green; but cf. *xococ*.

eztli, blood; Skr. as, asyáti, shoot, throw; asan, blood; Lat. ensis, sword; ālea, *as-lea, a die (dice).

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I

NOTE.—I is so often *prosthetic* that I have not deemed it necessary to repeat the statement except in doubtful cases.

i, pro., 3rd, sing. poss.; plu. *in;* as, no-ta, my father (tatli); *i*-ta, his father; *in*-tahuan, their fathers. Skr. pronominal root, *i;* Lat. *i*-d, that; Goth. *i*-ta; Ger. *es.*

-(i)an, *yan,* postpos. of place in which; o-n'acico in n'aci*an* (no+acian), I have reached my destination; tonatiuh i-qual-aqui*an,* sunset; temachtilo*yan,* a schoolhouse. Aryan locative with *n*-stem; Greek, *αυχ-έν-ι*; Goth. auhs-in (Brug., II, sec. 113); *i* or *y,* euphonic.

-ic, adj. ending; tet-*ic,* hard, stony; *tetl,* a stone; IE. *iqo;* Greek, *ἐθν-ικό-ς,* national, ethnic.

ic, conjunctive adv., as to, regarding; o-ya *ic* Mexico, he went to Mexico; *ic* ayemo, before; lit., as to the not yet; *ic* ti-az? when will you go? in*ic* qualli *ic* ti-miquiz, that you may die well; *ic* ce quaitl, the first chapter; ça no ye *ic* mo-miquillique in çauatl, they also died of smallpox (Chimph., *Annals,* 1520); Lat. ac; AS. eac, and, also.

icali, (nite) make war on, guerilla warfare; Skr. kal, to drive, to hurry; *kalaha,* strife; Lat. celer, swift.

içauia, (nino) to be astonished, (nite) to astonish or scandalize others; *iça*-t-eua, to wake and rise with a start; *iça*-uaca, (ni) I am hoarse; rattling of dry cacao beans, snake running over dry leaves; Skr. çiçāti, to sharpen, promote; Greek, *κώνος,* a cone, *κότος,* grudge; Lat. cōtes, whetstone; Eng. hone; Avestan, caem, point; *uaca,* vāc; Lat. vox, vok-s, voice.

ichcatl, **ichcactl,* sheep, cotton; Skr. chāga, goat; OHG. scāf; AS. skeāp; Eng. sheep (PAA., p. 23), transfer meaning.

ichpochtli, a girl, ich+*poch*-tli; Skr. bhaj; bhāgá, lot, *happy* lot; bhaginī, a sister (see Uitzil-o-*poch*-tli, PAA.,

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p. 114 ff.); *ich*, Skr. iṣ, to be desirable (see *telpochtli*, boy).

ichtequi, to steal; Skr. stā, to be stealthy; ste-ná, a thief + grah, to take (with the hand); (see cui).

iciui, hasten; Skr. su, sū, suváti, impel; *i* prosthetic.

icnotl, an orphan; Greek, *ἱκέ-της*, a suppliant; *ἱκνέο-μαι*, to entreat.

icoltia, to covet; Skr. īç, to own; AS. āgan; Ger. eigen; Eng. *own* + Skr. vṛt, vártate, to turn, happen, to be in an occupation; Lat. verto; AS. weorthen, become; Ger. werden; Eng. -ward and perhaps *wrist* and other cognates in various languages.

icpatl, a thread, *lic + patl; *lic*, Skr. likh, to slit, scratch; Greek, *ἐρείκω*, to cut, gash; Lat. rima, *ric-ma, slit, crack, line, a *rhyme;* Ger. ritzen(?), to scratch; *patl*, Skr. pā, to hold, keep, "keeps the rent together;" (see *tecpatl*).

icucic, ripe, cooked; *icucic* atl, hot water; Skr. çus, çúṣyati, dry up; Avestan, *hush*, dry, indicates *suṣ;* *i* prosthetic; or ic + usic; Skr. us-man, heat.

icuhtli, in comp., brother, or younger sister when elder sister speaks, younger sister when elder brother speaks; *icuiya*, to put up hair (woman), se coiffer, coiling of snake round tree; *icuia*, to tie up a roll with cords; *ichtli, ic-patl, a thread + Skr. vī, vyā, envelope, "wind around;" perhaps krṭ, to spin, to prepare; krta, "done;" *family relations*—Skr. cūdá, a tuft of hair left on a child's head after the ceremony of tonsure; "pure;" (see *tlaçotla*).

icuxoa, sneeze; çvas, çvásiti, blow, whistle, snort; AS. hwaesan; Eng. wheeze.

icxitl, the foot; cf. Skr. chid, to split, "the split one."

ihia, (nite) to hate another person; Skr. ci, cíyeti, to hate; (see *ihiotl*).

ihiotia, (nino) to be dressed gorgeously, to be conspicu-

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ous; Skr. *ĝhṛ, hṛ, yellow; Greek, χλω-ρός; Lat. holus, gilbus, fulvus; AS. geollo; Eng. yellow, gol-d.

ihiotl, breath, ni-*hiyo*, my breath, *ihiotl* ioui, current of air; lit. "the wind blows;" Greek, χάω; Eng. yawn; Lat. hio; *ioui*, cf. Skr. cyu, to stir; (*r*, 12, 17); (for loss of *c*, see *ihia*, *ihiouia*).

ihiouia, (qui) to be in want, be poor; Skr. hā, júhāti, to be left, forsaken; Greek, χῆρος; Lat. fames, hunger.

il, comp. in a few verbs as, *ilcaua*, *ilpia;* the verbum actionis of the compound; *otiose*, orig. to set a-going; Skr. ṛte, to set a-going; cf. Eng. he *starts-working* today.

ilacatziui, twist, turn, *ilacatzoa*, (nin') turn away, avert face, serpent coiled round tree; (nitla) roll up, as paper; (1) ilac + tziui; *ilac*, Skr. vṛj, vṛnákti; Greek, *ῥρέμβος; Lat. vergo, bend, turn; AS. wrincle; Eng. wrench, with *p*, warp, wrap; *tziui*, Skr. cyu, cyávati, to set a-going; or sū, the same meaning; *tzi*-ui may, however, be another spelling of *chi-ua*, a very common final member in compounds; *tzoa*, a by-form = *tziui*; (2) *ila* + ca + tziui; *ila*, **uila*, Skr. vṛ, turn; Greek, ἑλύω; Lat. volvo.

ilamati, to grow old; *ilama*, old woman; Skr. ram, to be quiet; Goth. rimis, quiet.

ilaqui, "anegarse la nao," the boat sinks; "pasarse el papel," spoil paper? the oil spot (clothing) spreads badly; a very indefinite definition; the allusion to boat appears to mean the rapid increase of water from a leak or pouring over the sides; Skr. laṅg, laṅghávati, leap, mount, enter, surpass.

ilhuia, to speak, call; ninote'*lhuia*, I appeal the case; xic-coua tzapotl qu'*ilhuia* "mamey," buy sapotes called "mamey" (Chimpo.); il + Skr. hū, hávate, call.

ilhuica atl, the sea; locution, may be confounded with *ilhuicatl*, heaven, Skr. ruc, rocaná. But this may be a

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case of homonyms. *Ilhuica atl* may be "the roaring water;" Greek, *ο-ρυγ-μός*, a roar, *ερεύγω*, to throw up, bellow, roar; Lat. ructo. But "the smiling sea" vies in beauty and immensity with "the smiling sky" and this may be either.

ilhuicatl, heaven, the sky; Skr. ruc, rocaná, region of light; Greek, *λευκός*, light; Lat. lux; Ger. licht; AS. leōht; Eng. light.

ilhuil, ilhuilti, not to be worthy; il + vil; (see *auiliui*).

ilhuitl, (1) a festival to be kept (ilhuia); (2) a day of the week; *ilhuictli; Old Per. raucah, day, from ruc, to shine.

ilhuiz, very capricious, very bad; *ilhuiz* tlacatl, a deceiver; Skr. riṣ, rísyati, to harm, injure; ṛís, an injurer; *ilhuiz* piltontli, bastard, may be above, "a wronged child;" or Greek, *ἔρως*, "a love child;" *s* offers an objection to the latter; cf. Skr. ruṣ, to be vexed, angry; or il + viṣ, "bad."

ilnamiqui, to remember; il + nami + qui (see *il*), nami, Skṛ. nā́man, name, "nāma grah," mention the name; (for *grah* this ending may be spelled *cui*, which see); Greek, *ὄ-νομα*; Lat. nomen; AS. namian; Eng. name.

iloti, to revolve, turn; Skr. luth, to roll; Lat. rota, a wheel(?).

ilpia, to tie; *ilpiloyan*, a jail; *pia, pie*, to have, to guard (see infra); *il*, Skr. īr ī́rte, set going (see *il* and *pia*).

ilpitza, to blow upon, nitla'lpitza, I blow upon it; il + pitza; Greek, *φυσάω*, to blow upon; (see *il*).

in, used constantly in almost the sense of the definite article "the;" Skr. pronoun, root *i;* Lat. i-d, id est; *i*-pan, with, near by; *i*-quin, when = i + kim; plu. *in* = "those who" as, *in*-tlaqua, those who eat.

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inaya, (nino) hide self; (nitla) hide a thing; i + naya; Skr. *ni*, in, into; Greek, *ενί*; Eng. be-*nea*-th; or nī, remove.

iquiti, to weave, Skr. grath, grathnáti, string together, connect; compose a book; kṛt, to tie, weave, will give the same; *i* prosthetic; cf. ic + vi, to weave.

itauhcayotl, fame, honors; Skr. dā, give + ojas, power; or *ka* + yotl.

itconi, vassals, "poor trash;" *ita*, to provide for a journey, proveer el aforza aotro; *it*, Skr. ad, átti; Greek, *ἔδω*; Lat. edo; Eng. eat; *itītl*, belly + çuna, emptiness, hence indigent, empty, poor; colloq. "empty bellies."

it-e, obese, it-e-tl, the belly; *itacatl*, food; Skr. ad, eat; Lat. edo; AS. et-an; Eng. eat; cf. án-na, *ad-na, Hind. food; esp. *rice.*

itla, thing, i-d + la? *i-d*, demons. pro., Lat. *i-d*, that; *la*, Skr. rā́-s, "possessions;" Lat. rē-s, thing; (see *tla*).

itlania, to ask something of another, beg; itla + *nī*, lead, direct; (for numerous meanings, cf. Sanskrit Dictionary).

itloc, with or near him, her or it; *itloc* quiça, resemblance of two things; *itlo*+c; Skr. ítara, other; Lat. iterum, again, a second time; OBulg. jeterŭm + c; cf. Aryan affix *tlo*, *i-tlo-c.*

itoa, (ni) to speak, tell (but to talk to another is nite-*notza*); the Mexican "tlatoani" (tla-*itoa*-ni) were rulers, kings; hence, Skr. dā, give, impart, ultaraṁ dā, to make answer, "have the last word;" Greek, *δί-δω-μι*; Lat. dō, give.

itotia, (nino) to dance; (nite) cause another to dance; Skr. tud, tudáti, to strike, pound; Lat. tu-tud-i; (see *tototl*).

itta, *uitta, see, take notice; xiqu'*itta* in tlein nimitz-ilhuia, heed what I say; Skr. vid, vétti, know, notice; Greek, **ἐ-ϝιδ-ον*, saw; Lat. vidēre; AS. wit-an, see; Eng. wit.

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itzcuintli, *izcuintli*, an extinct species of wild dog; Skr. çván, dog; Lat. *k^{v}anis, canis; Greek, *κύων*; Ger. hund; Eng. hound; cf. Clallam, ska-ha; Snake, sha-ray for prosthetic *s; i* prosthetic or may be analyzed, *itz* + cuintli; Skr. iṣ iṣáyati, "the swift one," or iṣ icchá ti, "the desirable animal;" cf. Aryan prefix *s*.

itztapalli, paving stones; hewn stone; itza + *pal*-li; *izta*, Skr. sthā, stand; for cognates, see *quetza;* for *pal*, see *tlapaltic*.

itztic, *ytztic* (Mol.), cold, also *cecec;* to be moderately cold: itztic, itzcaltic, itzcapintic (*calpintic?); *very* cold: itzcapintic, itzcalalatic, itzcalpatic (-pactic?), itzcaltic, itzcapatic, cecepatic; *itz*, Skr. iṣyati, "fresh;" or **stic;* Greek, *στίβ-η*, hoar frost; Lith. stink-stu, congeal; *cal.*, Lat. gelo, freeze; Goth. kalds; Eng. cold; cal-*pat*-ic, see *-patl;* cal-*pint*-ic, Skr. pīḍ, to pain (bhid? to "bite"); (for *cecec*, see *cetl*); cf. *stig, to prick, tij; *la*, ra, "having."

itztiuh (itzteua?), go; Skr. stigh, stinnóti, proceed, stride; Greek, *στείχω*; proceed; OBulg. stigna, I come; AS. stigan; Ger. steigen, mount; Eng. stirrup, *stig-rāp.

iui, in the same way; Skr. iva, as.

iuian, meekly, softly, gently; contented, pleased; Skr. van, vanóti, love, wish, possess; Lat. venia, Venus; AS. winnan; Eng. win.

iuitl, down, feathers; Skr. ví, a bird; Lat. avis.

iuiui, iu + iui, to be obliged to leave or quit a place or thing; Skr. yu, yuyóti, to repel, separate from.

ixca, *ixcohua*, to cook, bake, burn pottery; Skr. çuc, çócati, burn *skuc(?); Lat. cŏquō(?), cook, *quequō *squequō(?).

ixconoa, shell small seeds, as mustard; Skr. chā, cut off + nabh, burst; (see *nauauatl*). As an illustration of the

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difficulties of analysis, *ixconeua* means to attack another, striking at his face = ix + co + ni + eua.

ixhua, grow (plant), *itzmolini*, to bud out; *ix, itz;* Skr. iṣ, vigor; cf. Skr. vā; Eng. weave; Lat. vi-tis, vine.

ixiptlatl, ixip + tla-tl, an ambassador, delegate; an image, picture; Skr. sab-há, house, hall, "orig. perhaps family" (Lan.); Goth. sibja, relationship; AS. sibb; OEng. god-*sib*, sponsor, in baptism; Eng. gos-*sip*, a "familiar;" this supposes the envoy to be one of the "clan," "familia;" for *image*, Greek, *σκέπ-τ-ομαι.*

ixneloa, (nitla) to mix things up, (nite) put others in disorder; Skr. nṛt, nṛ + t, dance, play, move to and fro; (see *ixtli, neloa*); cf. snih, to be supple + rā, "having."

ixpechoa, to put something on over your clothing (as scarf or decoration?), *ixpechtia*, to put a thing on top of something else; *ixpepechoa*, stop holes with mortar; *pech;* Skr. paç, páçyati, to fasten; Greek, *πάσσαλος* **πακ-jαλος*; Lat. pac-tum, a pact; Goth. fahan; Eng. fang, a tooth; (see *ixtli*).

ixpeloa, to open the eyes wide (stare), to wink; ixtli + *pel;* Skr. bṛh, to make big; + rā.

ixquich, all, as much as possible; *ixquich* amotlapal xic-chiucan (Mol.), do [ye] your very best; pronoun forms, Skr. asāú(?) + kas; correlative with *quexquich*, as much, so much, how much; *quexquich* ipatiuh inin totolin? (Arenas) what is the price of this chicken? cf. Lat. quis-quis.

ixtlauatl, plain, prairie, campus; Skr. stṛ, stṛṇā́ti, strew, spread out; Greek, *στορέω*; Lat. sterno; AS. streaw; streowian; Eng. straw, strew; Lat. stratum; OL. stlatus, spread out; (for initial *stl*, cf. Brug., I, sec. 503); (see *citlallin*, a different form of same root); *uatl*, cf. affix, *vat.*

ixtli, the face; node on a cane; *itztimani*, to be standing looking at something; Skr. īkṣ, īkṣate, to look, see; mean-

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ing not only the human face, but the face of an object, as a wall; (for *ks* 16).

ixui, gorge, eat to repletion; doubtful; cf. Greek, *σῦ-ς*; Lat. sus; AS. swin *su-ina; Eng. *sow;* from inordinate appetite of swine; "eat like a hog."

ixuiuhtli, a grandchild; *i-xu*+iuhtli; Skr. *su*, to bear +yuj, yuk-ti, related, "related to a son;" (15); *su*, Greek, *ὑι-ός*; OSlav. synn; Ger. sohn; AS. sunn; Eng. so-n.

iyaua, (nino) to offer self as a sacrifice to a god; (nitla) to make an offering; Skr. yaj, yájati; Greek, *ἁγιάζω*, to worship, hold sacred; (15).

izcalli, iz+calli, (nino) to revive (as from swoon), to quicken; (nite) revive another, give religious instruction, bring up children, (mo) the return of the sun (winter solstice); Skr. iṣ, iṣáyati, to set in swift motion+kal, kaláyati, drive; Greek, *κέλ-ομαι*; Lat. celer, swift; (MAP., sk-root, skand, to climb *skandli, *skalli; Lat. scando).

iztatl, *iztlatl(?), salt; perhaps Skr. str, to strew; "the strew;" but cf. stoka, drop, small; (see *citlallin* and *ixtlauatl*).

iztlacati, to lie, deceive; Greek, *στράγγ-ος*, perverse, shameless; *iztlactli*, saliva, spittle; Greek, *στράγξ*, a drop, to trickle.

-izt-li, verbal ending, as, *chiua*, to do, *chiualiztli*, a doing; *choco*, weep, *choquiztli*, weeping; *cochi*, to sleep, *cochiliztli* or *cochiztli*, sleeping; two forms (1) from *theme* most common, as *chiual-o-ni*, a thing done; from pass. chiualo; (2) from *root* as, *choc-iztli;* Aryan affix, "*is-to*" a superlative; Skr. ā́ç-iṣṭha; Greek, *ὤκ-ιστο-ς*, quickest; Goth. háuh-ist-s; OHG. hōh-ist-o; Ger. höch-ste; Eng. high-est.

izuatl, a leaf, *ixhua*, to bud out; syn. *itz*-molini; (for *iz*, see izcalli); *uatl*, Greek, *φυ-τό-ν*(?), "growth," a live or created thing; (see *ouatl*, *ixhua*); (14).

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L (never initial)

-li-a, "reverencial" ending of verbs, as nitetla-maca, I to someone it give; rev., ninotetla-maqui-*li-a; nino* gives sense of middle voice; cf. Skr. *irregular form*, third per., plu. mid., *īrē*, as nī, to lead, ninyīrē; another Sanskrit irregularity is *ur*, third per., plu., pres. indic. as *duh-úr*, "they milk;" compare with this Mex. ni-quiça, I go out; *quix-oa*, all go out; *yoli*, he lives, *yoli-ua*, all live; nino-*zau-a*, I fast; ne-zau-a-*lo*, all fast, "they fast;" (*r*, 17).

-lo, passive ending, ne-zaua-*lo*, they fast; "it is fasted;" teoqua-*lo*, "the god is eaten," cf. Aryan forms; Skr. duh-*úr*, they milk; third per., plu. mid., duh-rḗ; Lat. legitur, "one" reads, "they read" (Mex. idiom precisely); OIr. do-ber*ar*, it is given; (Brug., IV, sec. 1076); *r* is the passive sign in Latin as; am-ō, I love; amo-r, I am loved.

M

ma, *not*, with negative verb; *ma ti-tlatlacoa*, beware that you sin not; *macamo*, never = ma + ca + amo; Skr. mā, not, lest, would that.

maca, give, (nicno) give to self, i. e., to take as medicine; Skr. maṅh, *magh, make great or abundant a thing for a person; Lat. magnus; AS. mæg, be able; Eng. may; Ger. mögen, wish, be able.

maçatl, deer; Skr. mā́ṅs, mā́ṅsá, meat; Pruss. mensā, flesh; OBulg. męso; cf. Algonquin, moose.

macepoa, (no) my hand is asleep; maitl + cepoa; Skr. svap, svápiti, to sleep; Lat. sop-or, sleep.

maceua, to dance, if the dancing was done by holding *hands* or embracing; maitl + Skr. sevā, "service;" (nic) to merit a thing desired; mā, "mine" + sevā; belonging to one's self; Skr. pro. stem *m;* as mā́-vant, mine.

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maceualli, a slave, *maceualtin*, peasants, peons; ma + ceua + li; Skr. mā́, mine (māvant); sevā, service.

machtli, nephew, "manlike," male; *mach*, (1) a form of mag-nus; Avestan, mazda, male, "great," virile, powerful, Ahura-mazda; (2) Skr. mádhya, middle, madhyama-jātá, "middle born," a "*son*" (why?); Greek, *μέσσος* **μεθ-jος*; Lat. med-ius; Goth. mid-jis; Eng. mid-dle; cf. mod. Span. *macho*, a male.

malacatl, spindle; *malina*, to twist cord; *temalacatl*, mill, or wheel (of stone) on which captives were tethered and fought for liberty; Skr. mṛ; Greek, *μύλη*; Eng. mill; Lat. mola + ca-tl; note that "mill," to fight, is associated with temalacatl; *ina*, Aryan suffix; *te*, tetl, stone.

mamachotla, (nino) to be vainglorious and seek praise; (nite) to flatter; ma + ma, Skr. mā, to mete out + chad, to please, offer a person a thing + ra, "having."

mamali, redup., (nitla) to bore a hole; (tetlan nino) to force through a crowd; Skr. mṛ, *mal, *mel, crush, grind; (see molictli).

mamalti, redup., a prisoner; Skr. mṛd, mṛdnā́ti, to crush, afflict; AS. mold-e, crumbling earth; Eng. mold.

mamaluastli, "protector," fig., the constellation Orion; (1) Skr. vas, ucchā́ti, to light up; Greek *ἠώς*; Lat. aurora *ausōsa; Ger. Eōstra; Eng. Easter; (2) this *vas* may mean also "house" (astrology), "dwelling with;" (see *Nanauatzin*); *mamal*, Skr. *mal, suggests Maruts, the flashing ones, storm gods.

mana, (nino) give, stop; (nic) take; (nitla) make an offering, spread clothes to dry, xic-*mana*, carry it; oc cemmo-*mana* in quiauitl, it still rains; teixpan niquin-*mana*, declare banns, i.e., I place them before me or face to face; *mani*, to spread flat things, to continue to be in a place, to remain; standing or growing crops (Arenas),

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continued action, cuicati*mani*, they are singing; *mani* metztli Junio, in the month of June; a confusion of forms; Skr. *man*, remain, *manh*, increase; Greek, *μένω*; Lat. māno, spread, diffuse, flow.

mateloa, (nitla) to rub with the hands, as rubbing ointment; to chafe the hands; to strike another with the hand; maitl + teloa; Skr. tala, place on or under; specialized, *tala-ghóṣa*, "clapping the hands."

mati, to think; *machtia*, teach; teuan nino-*mati*, I agree with; Skr. man, to think, *mati*, thought; Greek, *μένος*, mind; Lat. mentis; AS. ge-*myn*-d; Eng. mind.

matzayana, cut off hand, divorce; (tetech nitla) lend at interest; maitl, hand + Skr. çṛ, çṛṇáti(?), to break, crush.

maui, (ni) to be afraid; *mauhtia* nino, to have fear; cf. Skr. mṛ, máriṣyati, to die; marā, dead; māra, murder; Lat. mori; Goth. maurþa; Eng. murder; mṛd, martyudhaya, fear of death. This comparison seems entirely correct but it seems strange that fear and death should be synonomous; cf. Skr. math, to hurt, oppress.

mauiço, *man-uiço, wise, honored: termination *o* = abounding in; Skr. man, mányate, to think; Greek, *μέμον-α*; Lat. me-*min*-i, to think of; Eng. mean + *uiç*, Skr. viṣ, vivéṣti, to be active; (PAA., p. 99, *μαγὶς*).

maxtlatl, a belt; *max*, see machtli; *tlatl*, Skr. tṛ, to cross, or trā, to protect.

mayana, to be hungry; *mayanaltia*, to starve another to death; *mayaquen*, wolf; maya + na, affix; ic nauhxihuitl *imayanaloc*, it was the fourth year of famine (Chimph., *Annals*, 1453); *y* as an "adventitious" vowel is frequently found as an introductory glide; perf. tense, pass.; Skr. māraṇa, killing, mṛ, to die; Greek, *μαραίνω*, to fade; Lat. mori; (for *quen*, see *quen*chiua).

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mayaui, (nitla) to throw a thing away (as worthless); (nite) to throw another down; maitl, hand + Skr. yam, yáchati, hold, restrain, hold out; áyata, extended; *jṃ-sk̂eti.

mecania, to hang a man; Armenian, mac-ani-m, I hang on to; (Brug., IV, sec. 620.)

mecatl, a cord; *mecay*otl, kinship; Skr. mi, to measure; mékhalā, a girdle(?); *relations*, Skr. méthati, to associate as friends; *metka? cf. Greek, μῆκος, length, extent.

melauac, direct, plain; *melauac* cuicatl, a song of the people; *melactic*, *melaztic*, direct, straight, and long; *melaua*, (nic) to explain a difficult matter; Skr. mi, minóti, to establish, measure, observe + rā, "giving;" *ac*-ti-c, *az*-ti-c, aç, to "attain," or añc, "toward."

metzli, month, moon; to-*metz*, the leg; Skr. más, the measurer; Greek, μήνη, moon; Lat. mens-is, month; AS. monath; Ger. monat; Eng. month.

Mexitli, Mexitl, Mexican god, another name for Uitzilopochtli; Avestan, Ahura-*mazda*, the great god; cf. mi + chid, "destroyer;" root, *mag;* (PAA., p. 55.)

meya, manar la fuente o cosa semejante (Mol.); apparently this definition does not confine *meya* to the flowing of liquids, but rather to the activity of a thing; hence *ameyalli*, a fountain; atl + *meya*-li; Skr. *maya*, a determinative as, sū-máya, of good make; kim-máya, of what make (root *mi*).

miccaçaua, (nino) to wear mourning for the dead; micca (miqui) + çaua; *çaua*, (nino) to fast; ne-*zaua*-lo, (pass. impers.) "everybody fasts," "all fast;" Skr. sah *sagh, pp. sodhá, be victorious, endure, suffer; Greek, ἴσχω *σι-σχ-ω, hold back; Goth. sig-is; AS. sig-or, victory; Ger. sieg.

michin, fish; Skr. mad-sya, fish, "the lively one;" cf.

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mīna, fish; in spite of this analogy I think the Mexican more likely to be miṣ, misáti, to have the eyes open, "the staring one;" (for *in*, as in açvin, cf. Whitney, *Sanskrit Grammar*, sec. 1230).

miec, much, the Pleiades; Skr. mahá, great, mighty, powerful, country, heaven and earth; Icelandic, mik-ell, great; AS. mik-il; OHG. mih-il; cf. Greek, *μεγ-ά-λα*; (Brug., II, sec. 76, p. 209.)

milli, a field; *mil*-pa, in the country; Skr. marú, desert; Slav. miru, the world; cf. *mil*, to assemble, Campus Martius(?). The Algonquin appears to furnish the same root as, Mil-uaki, Milwaukee, "Council ground."

mina, (nitla) to draw a bow, shoot, (nite) to prick, sting, as a wasp; *tlamina*, spurt, dart as serpent ready to strike, fish leaping from water; *Ilhuicaminatzin*, name of a chief, "he hurls his darts to the sky;" Skr. (1) mi, to measure, observe; (2) Lat. mitto, send, hurl; OHG. mīdan, let go.

miqui, to die, Skr. (1) mī, lessen + kṛ, "to make an end of it;" (2) mṛg, to fade away; OPer. mar, márkha, death; (12); cf. "*εν τοῖς νήσοις τῶν μακάρων.*"

mitz, pro., 2d per., sing. obj.; in yuh ni-*mitz*-itta, as I see you; Skr. ahám, tvam; acc, ma; Greek, *μέ*; Lat. me; Eng. me + sya *mi-sya(?).

mixoyotl, battlement; Skr. miṣ, miṣáti, look, keep eyes open, hence "the outlook."

mixtli, cloud; Skr. mih, migh, méhati, to make water; Panj. mih, to rain; Greek, *ο-μίχ-λη*; Lat. mingere; AS. migan; Eng. mist, *migst.

molictli, elbow; (1) Skr. mṛjáti, rub off; wipe away; Lith. melžu, milk; Avestan, mer^{e}zaiti, strips; Greek, *α-μέλγ-ειν*; Lat. mulgēre; AS. meōlc; Eng. milk; (2) mṛ, to mill; *molicpitl*, elbow, suggests the derivation, mṛ,

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μύλη; Eng. mill + Skr. īṅkh, (ik) to move unsteadily back and forth; hence, "the mill mover or presser," alluding to the movement in operating the hand mill; or mṛj, extended to molic + *pitl*, nomen agentis; (see *pitli*, *malacatl*).

moloni, spurting of a fountain, rising of clouds, feathers blowing in the wind, spreading of an odor; molo + ni; Lat. mōlior, to set in motion; cognate, itz-*molini*, the sprouting of a plant; Skr. nī, náyati, to lead, bring to, to "start" a thing going; or *oni*, affix.

molonia, to soften (cleanse?) feathers, wool; molo + nia; Skr. mṛdú, soft; Lat. mollis, to soften, make pliant; *nia*, cf. *nij*, to cleanse, wash; or *oni*, affix.

momoztla-e, daily; in totlaxcal *mo-moztlae* totech monequi ma axcan xitechmo-maquili, give us daily our needful bread (Lord's Prayer); mo-m + uṣtla-e; mo, Skr. mā, to mete out + uṣás, morning-evening, that is, a day; for *t* between *s* and *r*, cf. eōstra, Easter; *m* euphonic; (*e*, see *2a*).

montli, son-in-law; Skr. mānada, honor-giver; or mud, módate, to be glad, rejoice over; mudrá, joyous.

motla, (nitla) I throw a stone; teca nino-*motla*, I run into another inadvertently; mo + tla; Skr. muc, to hurl, let go + tṛ; cf. Lat. trāmĕo, to pass; (see *tla-tlama*).

moyaua, mo + *yaua*, spreading of grease on cloth, muddying of water; (nic) to spread a report; (nite) destroy enemies, or put them to flight, drive cattle; Skr. mā, make + yā, to go, "makes way."

moyotl, mosquito; Greek, μυῖα, *μυσ-ια, a fly; Lat. musca, fly; Lith. mus-i.

muchi, mochi, all (many); Skr. mah, mahá; Greek, μεγ-άλα; Lat. mag-nus; cf. Accad. many (Norris, *Assyr. Dict.*, p. 767); Natick, moche ke, moche *onk* with Mex. *oc* mochi, more; Fick makes Skr. mahá, Greek μέγα, Lat. magnus, OHG. mihil, all cognates; (see *miec*).

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N

nacaztli, the ear; nac + uastli; *nacayotl*, flesh, the body; *nac*, Skr. nag-ná, naked; Goth. naqaþs; Lith. nûgus; OSlav. nagŭ; Ger. nakend; Eng. naked; (see *ecauastli*).

nanalca, growl or snarl of dog, grunting of hog, quacking of geese, sound of cracked bell; *nanaltza*, barking of dog; Skr. ṛc, árcati, sing, intone (said also of wind); *nan*, perhaps onomotopoetic word, as "hum-hum," "sing-song;" *c* sibilant in nanaltza, cf. ṛg-veda, Rig veda; cf. Skr. *nard*, to scream + *ça*, to excite.

nanatzca, creak, crackle; redup.; *nat*, Skr. nad, to sound, hum, cry + affix *ka* or *sk*-a.

nanauatl, redup., a boil, bubo; Skr. nábhate, to burst.

Nanauatzin, the moon-god; nana + uatz-in; *uatz*, Skr. vas, to light up, or vas, to dwell; "dwelling with Nana;" cf. Nannar and Sin, Babylonian moon-gods; and MAP., p. 13, note 12.

nanquilia, to answer, reply, respond, as at mass; Skr. nāma grah, to name; nam, to pay respect + gír, speak; or nāman, name; Greek, *ὄνομα*; Lat. nomen; Ger. name; Eng. name + 2 qui.

nantli, mother; (1) Greek, *νάν-νη*, aunt; Welsh, nan, an aunt; transfer meaning (2) "the spinner" or "seamstress;" Goth. neþla, needle; Greek, *νῆμα*, yarn; Lat. net-us, spun, root, *snē-nĕ (Brug., I, sec. 75); (3) Skr. nand, to please, "a delight," nánda, a son, nandā, a *woman's name.*

Naua, Nahua, the Nauatl-speaking people; (1) Skr. nṛ, narā, nalá, man, "hero," primal man; Greek, *ανήρ*; Lat. Nero; (2) but *nal*, clear, water or weather; *nauatl*, clear; Nal, a river of Asia, must be a different root and may equally be the root of Nahua, "men." Molina defines *nauatl*, clear sounding, as a bell, or hombre ladino, a sagacious or cunning man. Arenas applies the term to

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weather and *water; naualli*, sorcery, Skr. *naya*, (naua) worldly wisdom; (*nac-ualli? MAP., p. 13); *nāyā*, a chief, perhaps in this sense the Naua were simply "guardians of the wisdom;" the whole matter is not entirely clear; (cf. *Nauaque Tloque*).

naua, to dance, "embrace," Skr. nṛt, also nṛ + t; *nauatequi*, to embrace; Hind. Nautch girl, dancing girl, Hindi drops *r* and *t* becomes sibilant, Mexican nṛ; Avestan drops *r* and *t* becomes *sh;* cf *arthá*, goods, *asha*.

nauac, near, *Anahuac*, near the water; Skr. náhus, neighbor, nah, *nagh; +c (see *ua*).

nauatia, command, demand; *nauatilli*, law; Skr. nam, námati, to yield + vad, vádati, speak, lay claim to; (*m*, see *mayaui*).

ne, pro. plu., "they," everybody; *ne*-zaua-lo, they fast; passive, lit. "they are fasted;" Uei *ne*-machtilo-calco, University, "Big house they are taught in;" Aryan, *ne, ne-s (Brug., III, sec. 436).

nech, pro. first per. sing., obj., me; ma *nech*-uiquili inon, let him bring that to me; Skr. nas, us; Lat., nōs; Eng. us; with *nech* omit *c, qui;* cf. OIrish, ne-ch *ne-kṵo-s; there is great confusion in *s*, *ch*, and *sh* (*x*) sounds so that differentiation is very difficult.

neci, to appear, tla-*neci*, breaking of day; Skr. naç, attain, reach; Lat. nac-tus, reached; AS. neah, naihst; Eng. next; "*through night;*" or Skr. tṛ + niç, night, nákta; Greek, *νύξ*; Lat. nox; Eng. night.

necoc, two-sided; *necoc* nemi, a "two-faced" man; *necoc* yaualtic, square; *ne* dual as in *neuan*, "we two" + Skr. guṇaka? *guka; guṇá, "secondary;" cf. ne + ca + oc.

necuiloa, (nitla) shift, trade, barter; (tetech nitla) put out at interest; ma nem-mo-*necuiloli* cetlamalli, see that no cargo (of mule) shifts (Arenas), ne + cuil; *ne*, imp.

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pronoun; *cuil;* Greek, *γῦρος*; Lat. gyrus, a circle, revolution; or naç, to lose + ví, turn away + ra.

necutli, neuctli, honey; Greek, *νέκταρ*; nec+utl.

neloa, *nelhuia,* row a boat, soften, beat (as eggs); ma-*neloa,* to swim; Mod. Gr. nero, water + *ra, to row; Greek, *ἐρέτης*, rower; Lat. ratis, raft; Eng. row.

nemi, live, dwell, exist; ipaltzinco in Dios ti-*nemi,* we live by the grace of God; inic ye *nemi* tlalticpac, while he lived, lit. walked the earth (Chimph., *Annals,* 1431); Greek, *νέμω,* share, grant, inhabit, dwell; *νέμ-ος*, pasture; Lat. nemus; Ger, nehmen, take; Eng. nim-ble; cf. çan ic *nemi,* "at every step," or "I have never known it otherwise" (Mol.); with Skr. *sánemi,* sa+nemi, always.

nenetl, pudenda muliebria, a child's doll, idol; *nene*-pilli, the tongue; Skr. netra, the eye; nī, to lead; cf. Greek, *νήδ-υς*, belly, womb; *idol* may allude to phallic worship.

nenqui, nothing; Lat. ne or non; Greek, *νη-*; Eng. none + Skr. gṛ.

nequi, to wish, tlein qu'itoz *nequi?* What does it mean? itoa, say; Romance idiom; cosa vuol dire? que voulez-vous dire? que quiere decir? Greek, *νό-ος*, mind, will + 2 qui; or Greek, *ναὶ*; Lat. næ + Skr. gṛ.

neuan, or *to-neuan,* "I and he", two together, two jointly; Mexican dual; ne+ua; plu. uan; Skr. ā-vā́m; us two; Eng. we; cf. bahú, more, increase; euphemism I and "more;" to-ta-*uan,* our ancestors; no-cauallo-ca*uan,* my horses, "one horse and more," but cf. *ua, va,* as suffix.

neuatl, or **ne,** separable pro., I; ne+Skr. *sva,* self, *nesuatl; or āvá; cf. same for teuatl, thou, yeuatl, he.

nextic, gray; *nextli,* ashes; Skr. naç, to perish; Greek, *νεκρός*, dead.

-ni, ending of verbal nouns, as tlatoa-*ni,* one who commands; ya-*ni,* one who goes, a traveler; Aryan, *ni,* end-

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ing of verbal abstract nouns, as Skr. lū-ni-ṣ, a turning-away.

no, also; Skr. ná, like.

nonotza, (nino) reflect; (niṭe) to speak to others, counsel; (nitla) to recount; *nonotzalli*, a story, narrative; Lat. noto, to mark, observe, remark + çā, to communicate.

nontli, a mute; Skr. mūtá, bound; mūka, dumb; Greek, *μύω*; Lat. mutus, mute.

noquia, spill liquids, pour; nic-*noquia*, I have diarrhoea; Skr. muc, muñcáti, discharge as phlegm, urine, ordure; Greek, *μυκ-τήρ*, nose; Lat. mūcus, snot.

no-uian, around us; *no*, poss. pro. + vi + an; Skr. vi, "around," out, away; (see [*i*]*an*, *yan*).

nunchipa, tomorrow; nun + chi + pa; Skr. nú, now; Greek, *νύ*, *νῦν*; Lat. nun-c; AS. nu; Ger. nun; Eng. now; Skr. nunám, in the *future; chi*, locative, as tlal-*chi*, on the ground.

O

oc, more, o + c? *oc* achi qualli, more beautiful; *oc* ce, another time; Skr. *ā*, further, besides; cf. Icelandic, *oc*, and.

oça, paint the face, adorn; Skr. uñch, wipe; áñjas, salve; Lat. unguo; Eng. wash.

ocelotl, a tiger (jaguar?) o + cel-otl; *o* Skr. ā intensive "very" + *cel*, Skr. cal, cálati, (kal) to be swift.

ocuelin, worm; Skr. kṛmi *qṛ-mi; Lat. verm-is *querm-is; AS. wyrm; Eng. worm; cf. Natick, okhq, a worm; *o*=ol, Skr. vṛ? ura-s, breast, "belly;" cf. analogous urá-ga, āura-ga, a serpent, "going on his belly."

ololoa, (nic) to make a thing round; (nino) dress self; tlal*olin*, an earthquake; *ollin* tonatiuh, motion of the sun; Skr. **ur*, ūrmi, a wave, "roller;" Greek, *ἰλλω* **ϝιλλω* (?);

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Lat. volvo; Ger. welle, a wave; *olo*-tl, a corn cob; *ololtic*, round; vṛ, to encompass.

omitl, a bone; Lat. os, *ost, bone + Skr. mít, a post; (see chinamitl); cf. Snake, *stzum*, a bone; Greek, *ὀστέον*; (for *s*, see 16).

on, particle in constant use, as, no*con*, I=ni + oc + *on;* ayac mitz-*on*-itta, no one visits you, but ayac mitz-itta, no one sees you (Chimpo.); meanings "extension," more; Skr. ánu, after, along, over; Greek, *ἀνα*; Goth. ana; Eng. on.

oquichtli, male; used to indicate males; as, *oquich*-mazatl, a stag; no-*quichui*, my husband; Skr. ukṣ, sprinkle; Goth. auhsa, bull; Ger. ochse, ox; Eng. ox.

otlaça, to stop the way, shut out, to mow grass; ot + laç; Skr. *ud*, Eng. out + Skr. lasati, rise, vi-las, to move hither and thither.

-otl, see *utl.*

otli, road; Skr. ud, forth, out (?); Greek, *ὁδος*, road; Slav. ut, a way.

ouatl, sugar cane, green cornstalk, *oluatl; Skr. ulva, enveloping membrane, and ulbaṇa, knotty; or *oṣ-uatl, ósadhi; *ὀισύα*? osier, "herbs" + *vat*, affix.

oui, difficult, dangerous; Skr. bhū, to be, bhūtá, a "being," an evil spirit; Eng. be; (PAA., p. 27; supra 14); or *2a* + Skr. vī, to strive, attack.

ozcoa, (nin') I warm myself by the fire; uz + coa; *uz*, Skr. uṣ, óṣatí, light up, burn; (see *tlauia*); *coa*, Lat. con? cum que; see *coa-*, *coua*, and *pepetzca*; cf. in *och*-pantli moqueztaya, it appeared in the west (comet); (Chimph., *Annals*, 1577).

Ozomatli, *oçomatli*, "the divine monkey;" ozo + mat-li; *ozo*, Skr. vṛshá- (kapí), the virile ape *ulza; (PAA., p. 53, supra 12); Oçomatli was a "station" in the migration, "day god" in Aztec calendar; (see *quauchi-malli*).

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oztopilin, a large round rush; *topilli,* a staff, shaft of a lance; *to*+pilli; Skr. *to*-mara, a lance; *to*-ya, water; *to*-vant, to make a libation of water; relation of meanings not clear; (see *calpolli*); *oz,* cf. oṣadhi, relating to herbs; (see *topilli*).

oztotl, a cave; Russ. ust, mouth, opening (shop?) (PAA., note 1, p. 164); *ostomecatl,* a merchant, osto+mecatl, "shop people."

P

1 **pa,** postpos., similar, like; ilhuica*pa,* from heaven or like heaven; Skr. suffix, púṣ-*pa,* flourishing; sami-*pa,* near.

2 **pa,** to dye, color; *paatl,* rose water; *poyaua,* to dye (which see); Skr. paṭa, cloth, curtain, image; pāṭala, pale red.

pac-ha, woolly; Skr. paçú, cattle; Lat. pecus; Ger. vieh, cattle.

pachiui, (ni) eat to satiety; Skr. bhakṣ (bhaj); Greek, φηγ-ός, oak (acorn); Lat. fāg-us, beech; AS. bōc; Eng. beech, book, buck, in buck-wheat.

pachiuia, (ninote) play spy; Skr. paç, *spaç; anupaç-yati, to spy; Lat. spec-io; Ger. späh-en, to spy; *uia* is perhaps hṛ hárati (hṛ=ui), to hold, carry, get, master, destroy; in fact this verb may mean almost anything apparently; (see MAP., p. 16; supra, 12 b).

pachoa, (nino) stoop, bend, compress the abdomen; (nitla) cover a person with a thing; (notech nic) to join or apply to body; (nite) rule, direct; tla-*pachoa* in totol-in, the hen sets, i. e., bends her wings over her eggs; Skr. bhujáti, bend; AS. bug-an, bend; boga, a bow; Ger. bieg-sam, pliable; cf. Natick, ob-*bahq*-os, a tent; *wonk*-i, *bonki (?), it bends.

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paçyotl, woof (weaving); *paç*-yolacatontli, reeds in frame to separate the warp; Skr. paç, to bind; Greek, *πάσ-σαλος*, peg, bar; Lat. pac-i-sco-r, bind; AS. fōh-en, fasten; Eng. fang; (see *acatl, tontli*).

pahua, *paua*, cook; *pauatl*, fruit; çan quin-tenque in Tlatilulca inic quin-*pahuazque* in quin-ualhuicaque Chalco, they washed the Tlatilulca that they might cook them when they had brought them to Chalco (cannibalism); (Chimph., *Annals*, 1469, p. 131); cf. pū, to purify; *paca* (Mex.), to wash; (15); Skr. pac; Greek, *πέσσω* **πεκσω*; *paua*, to cook, is not found in Molina, who gives *pauaci*, to cook.

paina, (ni) to run; *Painal*, the "man-god," vicegerent of Uitzilopochtli, "he who ran;" Chimal-*pahin* Quauhtle-uanitzin, author of "Annals" of the Naua; Skr. padá, step, stride; pedna, on foot; hence *paitna, to run; Greek, *πέδον*, ground; Lat. op-ped-um (pid), town; AS. foet, a step; fetian, to go for; Eng. fetch.

palaxtli, a wound with spear or stick; Greek, *πληγή*; Lat. plāga, blow; Lith. plak-ù, I strike; root *plāq̂, plāĝ.

paleuia, aid, protect; Skr. bala, power + *euia;* cf. pā, pālaya, pāla, a protector.

paloa, (nitla) to taste, dip bread in the sop; Lat. pălā-tu-m.

paltia, **palutia*, to get wet; azo ti-*paltizque*, perhaps we shall get wet (Arenas); Skr. plu, plávate, to float, swim; extension, *plud;* Greek, *πλύ-σι-ς*, washing; Lith. plu-ti, become flooded; AS. fleōt-an; Eng. float.

pan, postpositive, general meaning, "place;" *pa* + n; no-tlac-*pan*, on my body (tlactli); tlatlacol-*pan*, in sin; ix-*pan*, before my face; *pa*, synonym; Mexico*pa* itztiuh Pedro, Peter goes to Mexico (Olmos); y-xic-*pan* qui-tzotzopinique, quiçaco in i-cuitlaxcol, they punched (kicked?) him on the belly [till] his bowels protruded

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(Chimph., *Annals*, 1444); Aryan suffix, bhā, bho; OCSl. *ba;* ątro-*ba*, belly; zŭlo-*ba*, wickedness; Greek, *κόλα-φο-ς*, a box on the ear.

panauia, to excel; nimitz-cen*panauia*, I excel you greatly; *pani* ca, evident; Skr. bhāna, splendor; Greek, *φαίνω* **φα-νιω*, shine, manifest; epi-phan-y, manifestation of Christ; (for *uia*, see 12 b).

panoa, *palnoa, to cross a stream by boat or ford; Skr. párā, carrying over, further shore or bank; Lat. *per*-ire, perish; Ger. *ver*-gehen; Eng. *for*-bear; orig.+ *nāu*, boat; Greek, *ναῦ-ς*; Lat. navis.

panocuia, to peddle; pan+cuia; Skr. paṇa, to barter, bargain; (for *cuia*, see *coua*).

-pantli, line, wall, rank, flag; quauh-*pantli*, a bridge; coa-*pantli*, the great "snake wall," encircling the teocalli of Mexico; Skr. pathí, pánthan, path; Greek, *πάτος*, path; Lat. pont-is, bridge.

papatztic, soft and mellow, as fruit; *papatza*, to stir milk cooking; *papatzoa*, (nitla) to "mellow" fruit with the thumb; *papatzaua*, (nite) to criticise and detract from the statements of others; Skr. bhas, bábhasti, to chew, consume, reduce; yol-*patz*-micqui, "to be smitten to death in the heart."

paqui, (nic) to enjoy a thing; Skr. pājas, brightness, cheerfulness; *pacca*, joyously, pac+ka.

pati, to melt, as snow, or salt; Skr. pat, pátati, fall, perish, pour out, shed tears; *patilia*, to misdirect another on his way; "errar a otro;" Skr. vi-pad, fall asunder; (rev. 6).

patia, care for, to mend a thing; Skr. pā, protect; Greek, *πε-πά-μαι*, kept; Lat. pa-sco, keep a pasture.

-patl, final in comp., tec-*patl*, flint; ic-*patl*, thread; e-*patl*, a skunk; gen. meaning guarding, keeping, as **tec*,

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fire, patl, to keep, hence, *tec*patl, a flint, "keeper of fire;" Skr. pā, to protect; pitṛ, father, "protector;" Greek, *πατήρ*; Lat. pater; Goth. fadar; AS. fæder; Ger. vater; Eng. father; *tec*-patl and *e*-patl may also be referred to Skr. pátati, to pour out, shed; (see *pitli*).

patla, (nino) distrust, be tired waiting; (nitla, nic) change, undo a thing, to trade (commerce); cuix tic-nequi tic-*patlaz* ica inin? will you trade it for this? (Arenas); Skr. pad, pádyate, *vi-pad*, to fall apart, answers to *undo; prati-pad*, to get, acquire (trade?); cognates, *patiotia*, (nitla) to buy; *patiotl* or *patiuhtli*, price.

patlani, to fly; Skr. pat, to fly, páttra, wing; Greek, *πτέρον*, wing; Lat. penna *petna; Ger. fed-er; Eng. feather; cf. Natick, ptoeu, it flies.

patlauac, broad; Lat. patŭlus, broad; cf. Skr, pratháte, to widen.

patli, potion; *pati*, to be convalescent, cure; *patia*, to cure; Skr. pā, drink; Greek, *πέ-πω-κα*; Lat. po-tus.

patolli, dice; *patouia*, (nite) to play at dice; Skr. pat, pátati, to cast down, fall; Greek, *πί-πτω*, fall; Lat. pet-o +vṛ, *uṛ, to roll.

patzaua, to bruise or press fruit, as grapes; to reduce a swelling; *patzauac*, barley or maize blasted or frost-bitten; Skr. pad, pádyate, perish, go to ruin+sā, syatá, press hard, distress, destroy, make an end of, in Skr. as in Mex. at *end of comp.;* cf. *patzca.*

patzca, (nitla) to squeeze a thing very hard, to wring clothing; *patzmiqui*, to cause others distress; *patzconi*, the screw of a wine press; Skr. bhas, bábhasti, crush, consume; pa + *sconi*, Skr. çcut, to drip.

patzcoa, (nino) slip out from among others; *petzcaui*, to slip from the hands as an eel; Skr. paççā́, behind, *west*, with kṛ, to leave behind.

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pepetzca, redup., shining of a smooth surface, as silk or brilliant plumage; Skr. pi, full + çcand, shining; Greek, *ξανθ-ός*; Lat. candeo.

petla, (nitla) to bore, split; (nite) charge an enemy, rush upon; Skr. paṭ, to split; pat, to fly, fall upon; Greek, *πετάω*, spread, open; *πετόω*, strike, hit against; Lat. pet-o, attack; cognates, *petoni*, to project, as the end of a beam in a wall; dislocate a joint; *petlani*, *petlania*, to drain off or spread liquids; two roots; + ra.

petlatl, a mat; Skr. pīḍ, to tread on + tṛ; cf. Skr. páttra, a wing, feather, cart, paper, plate of metal.

peua, *pehua* *pela, (nite) begin, be first; conquer; (nom) I start somewhere; quin-*peuh* in ueue Moteuhc-çomatzin, Montezuma the Elder conquered them (Chimph., *Annals*, 1461); Skr. párā, further, beyond, over; Greek, *πέρα*, ultra, over, exceedingly; (12).

pi, (nitla) pull out as hair, pull up grass, *bida; Skr. bhid; Lat. findo; Ger. beissen; Eng. bite, bit (part.).

pia, *pie*, have, guard; tlein tic-*pie* tehuatl? what ails you? (Arenas); Skr. pā, pāti, guard, keep; (see *pitli*).

piaztic, long and slender, narrow, as a man, a column; Skr. pra, forward + si, to bind (a string); prásiti, continuing + c.

pichautica, stiff with cold, *very* cold; pi + *chau-tica;* Skr. jāḍrā, frigidity, stiffness; *pi*, pīḍ, to oppress, pain; pīḍā, pain, ache.

pilli, cavalier, a noble; no-*pil*, my son, my dear child; *pil*-tic, delicate, tender, gentleman; *pillatoa* (pil + itoa), to speak in elegant phrases; gen. meaning *to have pleasure* in a thing; Skr. prī, prīnáti, to gladden, to have pleasure in; Greek, *πρᾶος*, gentle; Goth. frijō, treat kindly; AS. freōnd, loving; Eng. friend; AS. frī; Ger. frei; Eng. free.

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piloa, (nino) hang self; itech nino-*piloa*, I grasp, hang on to, persevere; (nitla) to hang up, as clothing; pi + loa; Skr. bṛh, bṛṅhati, pluck, destroy; *middle*, to draw toward one's self, cf. Mex. middle (nino) + ruh, rise, put upon.

pinaua, to be ashamed; *pina*yotl, bad reputation; Greek, *πεινάω*, to want, be poor; *πίνος*, dirt.

pipiolin, *pipiyolin*, a honey bee (bee of the mountains, Mol.); Lat. pipi-o, to chirp, pipe, as a bird (onomotopoetic); cf. Skr. pipīla, an ant.

piqui, to invent; *piquia*, (nitetla) to calumniate; *cuicapicqui*, to write a song; Skr. piç, piṅçáti, arrange, adorn; Greek, *πίκ-ρος*, bitter; confusion of roots.

pitli, elder sister, dueña; Skr. pitṛ́, father, "protector;" for cognates, see *-patl.*

pitzauac, delicate, slim, as columns, ropes, road (narrow), gentle wind, small (as beans); Skr. piṣ, pinášṭi, grind, crush; Lat. pinso, pound, beat (small); cognate, *pitzini*, to break an egg, to chew, to prick a pimple; (for *ua-c*, see *va*).

pixca, to gather the crop; *pixquitl*, harvest; Skr. bíja, seed, corn, grain; bijaka, seed; (see *teopixqui*).

poa, *pohua*, (nino) to be proud, (nitla) to count, to render account, as of stewardship; cem-*poa*-lli, one score, twenty; (itech nic) to give another his share; *poaltia*, (itech or tetech nic) to dedicate, as a book; Skr. bhā, bhā́ti, to shine, to appear, become manifest; Greek, *φή-μι*, to speak; Lat. fā-rī; Eng. ba-n, "notice" (marriage); *tlapoa*, the same, shows double use of *tla; nitla-tlapoa*, I open, gate keeper, makes evident; xic-*tlapoa* in m'ixtelolo, keep your eyes open (Arenas).

poçaua, swell, inflate; *poçoni*, to be angry, agitated, boil, dash, as waves; po+çaua; *po*, **pol;* Skr. bhur, bhuráti, struggle, stir; Greek, *φλύω*, *φύρω*, bubble; Lat. furere, rage; Eng. brew, to boil+Skr. çā, to excite; (*r*

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17); but cf. phonic treatment of final *s* and *r;* (Whitney, *Sanskrit Grammar*, sec. 169*b*).

pochina, to card wool or cotton; poch-ina; Skr. bhuj, bhujáti, to bend, fold; (for cognate, see *pachoa*).

poctli, smoke; *popoca*, it smokes; *Popocatepetl*, smoking mountain, volcano s. w. of City of Mexico; Greek, *πυκάζω*, thicken, hide, shade.

poliui, *poloa*, perish, wane; ye *poliui* in metztli, already the moon wanes; ic *cen-poliuhque* in Xaltepeca, the Xaltepecs finally succumbed (Chimph., *Annals*, 1500); po + liui(?); if this analysis be correct, Skr. bhū, to be + rávati, dash in pieces; Greek, *ἐρύω*; Lat. ruo; Eng. ro-t; *poloa*, (nic) to waste, lose, ail; tlein otic-polo? what ails you? (Arenas); bhū + ruj, *roga, to break, pain, *disease;* cf. Greek, *ὄλλυμι*, to destroy; (see 12 b).

popolhuia, to forgive; ma xitechmo-*popolhuili* in totlatlacol, forgive us our sins (Lord's Prayer); Skr. pāpa + rah, to leave, give up; pāpa-rahita, innocent; (see *poliui*, *poloa;* 12 b).

potli, in comp., an equal; no-cihua-*po*, a woman of my own class; Skr. pātra, worthy person, "an equal."

potoni, to stink; Skr. pū-ti-ṣ, stinking; Greek, *πύ-θ-ω*, rot; Lat. puter, rotten; + Skr. dā, "give" + ni.

poyaua, to dye cloth; tlapal-*po-yac-tic*, rose or orange color; Skr. bhas, bright + rāga, color; (*s* 16, *r* 17, *g* 15).

puchtecatl, merchant, puch + tecatl; Skr. bhuj, profit, wealth; (see *teca*).

Q

qua, to eat; Panj. kha-na, eat; cf. Skr. khād, bite, chew.

quachtli, a large cotton mantle; Skr. kaṣāya, a brown-red garment.

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quaitl, head, top, extremity; ic ce *quaitl*, the first chapter; *quaiztac*, gray-headed; Skr. *ka*, the head.

quaiuinti, to "lose one's head," get giddy, weep much; quaitl + *uinti;* Skr. ūna, lacking; Greek, *εἶνις*, bereft; AS. wanian; Eng. wane.

qualani, to be angry; Skr. hṛ, hṛnīté, growls, is angry; cf. kalaha, strife; Avestan, *zar-*.

qualli, good, ye *qualli*, enough; Skr. kalya, well; Greek, *καλός*; AS. hāl; Eng. hale.

quaquauitl, a horn; *quaqua-e*, animal with horns; Lat. cerv-us, stag; Ger. hirsch; Eng. hart; Avestan, *çṛva*, horned.

quauhchimal, monkey; *oçomatli* was "the divine ape" (PAA., p. 53), hence *quauh*, may be Skr. kapí, ape, but if *chimal* be analyzed chi + mal we get dhī, piety + mṛgá, *mar-gá, wild animal, specifically the gazelle in the moon, an object of adoration, then taking *quauitl* as tree we have, "tree-pious-animal," and by the first "ape-pious-animal."

quauhtli, an eagle; *quauhuia*, to groan with pain; *quauhtlatoa*, to speak loudly; xi-tlaquauhtlatoa, speak loudly (Arenas); *harsh* sound; Skr. khára, harsh, an ass from his bray; cf. gu, to cry; *βοή*; gā, to sing; Eng. caw.

quauitl, a tree, stick, beam; Skr. kṛt, kṛntáti, to cut; karta, a cut, hence *quauitl* is a thing to cut or already cut off; (12).

quech-coatl, rattlesnake; Skr. khája, agitation.

quechia, to lean on, support self by something; *quauh-quechilia*, to prop a house with timbers; itech ninotla-*quechia*, I lean on it; Skr. çliṣ, çliṣyati, to cling to, adhere; its cognate çri, is AS. klinian; Eng. *lean;* (*r* 12, 17).

quechtli, the neck (head); ma-*quechtli*, the wrist; *quech*-tepulli, nape of neck; hence, something *slender;*

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Skr. kṛç, grow lean; Greek, κολοσσός, *κολοκ-jός; Lat. gracilis, slender.

queloni, to dislocate a joint; (nite) to deceive, (ten-queloa); que + lōni; *que*, Skr. ceṣṭ, move the limbs, act + lu, lónati, to loose; **quest-loni.*

quem, quen, cuen, interrog. particle, *quen* ti-ca? how are you? *quem* patio? what is the price? *quentel*, so much; form of the Aryan interrogatives, *qo, *qi, *qu; Skr. ká-s; Lat. quo-d; Goth. hva-s; Eng. who; cf. Skr. *kim* aham ajñas? with *quen* ti-ca? (see *cuix*).

quenchiua, strike, wound, do an injury; Skr. han, hánti, strike, kill, destroy; Greek, φατός, slain; OHG. gund; AS. *gunð, battle; cf. French, *gonfalon;* root, *ghᵛen + *chiua.*

quentia, to cover self with a mantle; Skr. kṛṇti, to weave; cf. Skr. kanthā, a patched garment.

quetza, (nino) rise up; (nite) detain one, stop; *quetz-tica*, standing; ote-ixpan-*quetza*-lo-que, the bans are declared, they stand face to face; que + tza *sta; Skr. sthā, to stand; Greek, ἵ-στη-μι; Lat. stāre; OHG. sta-n; Eng. stand; (for *que*, see *1 qui*); cf. Greek, ἐ-χε-ι, there; he "there-stands."

Quetzalcoatl, "The Fair God;" the plumed serpent of the air; quetzalli, plume + coatl, serpent; Skr. çubh, to be fair, to glide.

quetzalli, a plume; Skr. késara, keçín, with flowing mane; Lat. cessaries, hair; *Quetzal-coatl*, the plumed god.

1 qui, plu. *quin*, pre-pos., obj. pro., him, her, them, it; nic-qua in nacatl, I (it) eat meat; yeuantin *quin*-polloque in Mexica, they [the Mexicans] conquered them (Chimph., *Annals*, 1433); (1) Aryan, *ki, kio; cf. Lat. *ci*-ter, *ci*-tra; OHG. *hin*-tu, OSax. *hin*-diga, on this day;

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(Brug., III, p. 329); (2) simply the objective relative pro. Skr. kás, kim, kā.

2 **qui,** verbal affix, asserting the action of the head word, as ten-*qui*, a full thing; palan-*qui*, a rotten thing; coyayau-*qui*, a thing widened; Skr. kṛ, kṛṇóti, do, make, cause; this is analogous to the development of kṛ in Indian dialects, as Hindustani *kara*, (pp.) in poetry rarely, regularly *ki-ya;* Panj. vulgar, *karia*, regularly *kita*. There is occasionally some doubt between *kṛ* and *grah;* (see *ilnamqui*).

3 **qui,** emphatic or exclamatory prefix; *qui*-cempactica, he who is happy, "how happy he is!" *qui*-ciaui, to be very tired; "how tired he is!" yollo*qui*mil, rude, rustic, "in heart, how countrified!" Skr. *ki*, (ka, ko, ku), kīdṛç, what kind?

quiaua-c, outside (the house); *quiauatl*, door; see 3 *qui* + Skr. áva, off, "away;" *auatl*, door; "the thing which swings away;" or *kerv, turn; *kelvatl, Greek, κυρτός; Lat. curv-us; Goth. haúrds, door; Eng. whirl.

quiauitl, rain, qui + auitl; *qui*, Skr. ghṛ, jígharti, to drip, *ghee*, Anglo Ind. melted butter; *auitl*, Skr. *ap*, water; Lat. aqu-a; OHG. ahwa, water; Eng. Avon; (14).

quiça, *quiza*, (ni) go out of the house, finish a work, cease raining, ripen (grain), rise (as sun); ual-*quiza*, arrive; *quizani*, one who has gone; itech *quiza*, touch in passing; Skr. çiṣ, çináṣṭi, leave, remain, i. e., be left, be wanting.

quil, they say; *quil mach*, same meaning; *quil*, Skr. gṛ, to speak, call; gír, a voice.

quimichin, mouse; qui + michin (see 3 qui); *qui*, Skr. *grah*, to take, seize, "steal;" cf. parallel meaning of muṣ, to steal, "mouse;" the idea is the same, but the vowel *u* is an objection to the latter derivation; (see *michin*).

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quimiloa, to tie, roll in mantle, bury the dead; *qui-milli,* a classifier (enumerator), a pile of clothing; 3qui + *miloa;* Skr. mṛ, to die; Greek, *μορ-τό-ς,* mortal; Lat. Morta, goddess of death (see *miqui*); for meaning *roll, pile; qui,* Skr. kṛ, "a made pile," "a dressed corpse" + mṛ, "mill," "round;" (see *malacatl*).

T

ta, prefix, apparently originally a particle; Skr. *tá;* Greek, *ὁ, ἡ, τό,* "the;" *otiose,* as, *ta*-machiua, to weigh; *ta*-paçolli, a bird's nest; *ta*-col (colli), the shoulder; *ta*-mascalli, a vapor-bath house.

tacapiliui, to bear the marks of cords in the flesh when bound; taca+piliui; Skr. dā, bind; Greek, *δέω* + ka; (*pi,* see *ilpia; liui,* see *poliui, poloa*).

tamalli, Hispanicized *tomale,* a Mexican cooked roll, consisting of Indian meal (maize) mixed with minced meat and chili, and enclosed in successive layers of corn husks; *tomaloni,* a thing which can be unrolled; ta+malli; Skr. dā, dyáte, to cut + *mar,* to enclose; (see *temalacatl*); but cf. *toma,* to unroll, open.

tanima, *to* + *anima,* "our mind," the soul; *te* + *anima,* somebody's soul; Skr. an, ániti, breath, blow; Greek, *ἄνεμος*; Lat. anima; Goth. anan.

tapayolli, a ball; tapa+yolli; tapa, Skr. dhṛb, dṛbháti, make into tufts; tol-*tapa-yolli* in camac qui-hualaaquique, they thrust gags of rushes into their mouths (Chimph., *Annals,* 1469).

tataca, redup., scratch, dig; Skr. dih, *digh, stroke, touch lightly; Lat. fingo, form; Goth. daigs, moulded mass; Eng. dough.

tatli, father; Skr. dhātar, the giver; Avestan, dātar, he who places, the "*creator;*" this is after the analogy of pa-

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ter, he who protects; or Skr. tatá, "papa;" Greek, *τέττα*; Lat. tata.

tçulli, çulli, tçolli, çolli, postpos. (Olm.), worn, old, rusty; tilhma-*tçulli*, an old cloak; notilma-*çul*, my old cloak (Olm.); *içoliui*, clothes get old (Mol.); *içoloa*, to degrade self; Skr., sūd, to finish, *sut-li, sulli; cf. Skr. dhvṛ, dhvárati, gen. meaning to injure; Lat. fallō, deceive; Goth. dvals, foolish; AS. dwellan, to check; Eng. dull, dolt; Ger. toll, mad; (Brug., IV, sec. 608).

1 **te,** indef. pro., 3rd sing. and plu. obj., him, her, it, them; ni-*te*-tlaçotla, I love someone; Skr. tá: sás, tát, sā́, first per. plu. masc., *té*.

2 **te,** emphatic prefix, as *te*-ana, to take apart; *te*-aci, to overtake; *te*-ach-cauhtli, a leader, chief; *te*-çacatl, large straws; Skr. verbal dá, giving, causing.

teca, (nino) lie down; tepan nino-*teca*, attack, "square up to him;" mo-*teca*, they assemble; (nite) cohabit; tepan nite-*teca*, diffame; (nitla, nic) set posts or trees; ipan nic-*teca*, place poles in piles; *tequilia*, take charge of; atlauh-*teca*-tl, keeper of the darts; *tequitl*, work tribute; gen. idea of arranging, working, caring for; Skr. takṣ, work; Greek, *τέκ-των*, an artisan; Lat. tig-num, a log.

tech, pro., first per. plu. obj., us; Skr. tá: sás, tat, sā́; Greek, *ὁ, ἡ, τό*, that (one); Skr. plu., te, *te-s? omit *c*, *qui*, objective with *tech;* may employ *in*, as, ti-*techin*-cuili in to-quaquauecauan, you (thou) took our oxen away from us; for *s*, see Skr. fem. plu. acc., tā́s; gen. plu. masc., téṣām; fem., tā́ṣām; (see *nech*, where *s* is differently treated).

techcatl, the terrible sacrificial stone now in the National Museum of Mexico; Skr. tij, tejáyati, to be sharp; *tikṣná*, hot, bitter, slaughter; *tejas*, heat, radiance, vigor, fierceness + ka.

tecolli, charcoal, braise (Sim.), live coals; Skr. dah,

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*dhagh, burn; Goth. dags; AS. dæg; Eng. day; (PAA., *Tlacatecolotl*, p. 49).

tecolotl, an owl; tec+olotl or *ulutl;* for *tec*, see *tecolli; ulutl*, Skr. úlū-ka, owl; Greek, ὄλολ-υς, howler; Lat. ulula, screech owl; (*Tlacatecolotl*, PAA., p. 49).

tecpatl, a flint; tec+patl; *tec* as in *tecolli;* tec-pa-tl, "keeper of fire;" (1) Skr. pā, to keep, "to have," "to hold;" (2) pat-l, Skr. pat, to throw out, "eject sparks;" (see *pati* and *epatl*).

tecpin, *-pintli*, a flea, tec+pin, *tec*milotl, hornet; Skr. tij, tejáyati, to prick, orig. *stig; Greek, στίζω; Lat. instig-o; Eng. stick; *pintli*, Skr. píṇḍa, a little ball.

tecuicitli, a crab, tec + uiç-i-tli; for *tec*, see tecpin; Skr. *viṣa*-ya, "activity," working; viṣā́-ṇa, horn, tusk, *claw of crab;* but may be tec + *vi*, away + *citli*, the sitter, "spiny, backward mover or sitter."

Tecuiztecatl, the sun god; Skr. tij, sharp, hot; tikṣṇāçu, the sun + *viṣ* as in *tecuicitli* + tecatl.

> "Scorpion men guard its gate,
> From sunrise to sunset they guard the sun."
> —*Gilgamesh Epos*, XII.

tecutli, a leader; 2 te + cut + li; Skr. çad, çāçádi, to distinguish one's self; CSl. *kot*-ora, battle; OHG. Haduwich, battle strife; AS. heaðo-weōrc, battle work; Ger. hād-er, strife.

1 **tel,** adversative conj., yet, more; cf. Skr. tárhi, in that case, then.

2 **tel-,** as prefix; to despise or to speak of another with great disdain; ipan mo-chiua ca mochtin qui-*tel*chiua, thus it happens that all despise him (Chimpo.); *delp; Skr. dṛp, wild; dṛ́pyati, to be insolent, arrogant.

telchitl, one who thinks evil of another; tel + chitl, Skr. ci, ciyéti, to hate; (for *tel*, see *telchiua*).

telpochtli, boy, young man; *telpocatl*, youth; *tel*, cf.

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Skr. tila-ka, ornament, "pride of" (family); (for *poch*, see *ichpochtli*, *Uitzilopochtli*).

tema, (*temi?*), (nino) bathe, see *teni*, to bathe; (nitla) store things away, as corn; cook in a little oven; fill in earth; *temi*, (ni) to be full to satiety, fill a vessel with liquid; to collect together, as a litter of puppies; a pile of grain; general meaning, to *teem*, to be plenty; AS. tēman, tyman, to bring forth, to abound; Eng. teem; or Lat. con-*tineo*, hold, contain; cognate, *tenqui*, adj., full.

temazcalli, *tetl*, stone + mascalli or *te* emphatic; a bath house, vapor bath; *mascalli*, Skr. májjami, I duck under; Lat. merg-o; AS. mearg; Eng. marrow, "inside."

temo, descend; *temoayan*, descent; New Persian, *daman* i-koh, hillside, "descent;" doubtful.

tena, (ni) groan; Skr. stan; Greek, στένω; Swed. stan-ka, pant; Eng. stank.

tene, sharp; *tene*-yeyecoltiliztli, a great temptation; *tecne, *ticne; Skr. tij, tejas, sharpness, edge.

teni, wash, *tetenqui*, one who bathes another in temascalli bath (tema?) çan quin-*tenque* in Tlatilulca inic quin-pahuazque, they washed the Tlatilucas in order to cook them (cannibalism) (Chimph., *Annals*, 1469); Skr. tim, to be damp; (see *tema*).

tenitl, a foreigner; tentli + it-l; "another tongue;" *it*, Skr. ítara, another; Lat. itĕrum.

tentli, lips, border, edge, fig., by "extension," a word; Skr. tan, tanóti, extend; Greek, τάν-υ-μαι; Lat. tendo; Ger. dehnen; Eng. thin; cf. Natick, mut-*toen*, the mouth.

teo, prefix like *ta*, gives emphasis; as *teo*amatini, a skilful sailor; *teo*cocox, leprous, very sick; *teo*ciui, hungry; *teo*xiuh, generous son; *teo*tlac, evening, late in the day, "very late"; Skr. dā, dádāti; Aryan, *di-dō-mi; Greek, δι-δώ-μι; Lat. do, dedi; Skr. verbal dha, or dhā, giving.

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teociui, teocihui, be hungry, teo+*iciui; teo*, very; *iciui*, or *ixui*, to eat ravenously; in MAP., p. 9, Lat. daps, a meal, hence *teus*-i-ui. This is regnlar but it seems more probable that the word is a compound; (see *ixui*).

teo-pixqui, a priest, guardian; teotl+*pixq-i;* Skr. prach, *pṛk-sk, ask (pray); Greek, *θεο-πρόπ-ος*, asking the gods; Lat. prec-es, prayers; (12; *pixca*); Ger. forschen.

teopoa, (nino) to be afflicted, (nite) to afflict; nic-*teopoa* in nix [no+ixtli] in no-yollo, I am much afflicted in countenance and in heart (Mol.); Skr. tap, tápati, do penance, "burn;" Lat. tepor?

teotl, teutl, god; Skr. dív, the sky; Greek *διός*, **διϝος*, heavenly; Lat. divus, dius, deus; Germanic, tiw, as in Tuesday.

tepetl, mountain, Pers. or Kurd, tapah; Turk. tepe; Greek, *τάφος*, a hill or tomb.

teponastli, *tepontuastli, a drum; te+pon+astli; *pont*, Skr. bhāṇḍa, a musical instrument; (see *2 te* and *ecauastli*).

tepulli, membrum virile; quech*tepulli*, nape of neck; hence, slender, tapering; AS. tapur; Irish, tapar, a small candle; Welsh, tampr; Eng. taper+vṛ; cf. cal-*pul*-li, a phratry; cf. tetl, stone+pul; Skr. pṛ.

teputztli, shoulders, back; Skr. pṛ̊sthá, back of an animal; AS. first-hrōf, ridge pole (house); Ger. firste, ridge of roof; (see 2 *te*).

tepuztli, metal, iron, bronze; (1) tetl, stone+*puztli;* Skr. bhrāj, to shine; Greek, *φλέγω*, flame; Lat. fulgur, lightning; Eng. bleach? "shining stone;" (12); (2) tap, tápati, to burn; glow+us, oṣati, to burn; "glowing hot;" (see *tlauia*).

tetl, a stone, perhaps Skr. tṛṣ, "dry;" Lat. *ters-a, terra, land *tels-tl; cf. French tête, *testa for analogy in form.

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tetzaua, to coagulate, to be sticky and hard (bitumen); *tetzaual*-mulli, a thick soup; *te* emphatic + tzaua, Skr. styā́yeti, to coagulate; (see *tiçatl*).

tetzauia, (nino) to see an omen, be in terror; *tetzauitl*, a prodigy, in peuh in ilhuicatl itech uel mo-quetzaya in *tetzahuitl*, there appeared, remained in the sky a dreadful prodigy (Chimph., *Annals*, 1509); in PAA., p. 117, tetza + uitl; Skr. dasá, a demon + *vid*, to be wise (in bad sense); Icelandic, vit-ka; AS. wic-ca; Eng. witch; cf. vadh, to destroy; vadhá, Indra's thunder-bolt; epithet of *Uitzilopochtli;* cf. te + savitṛ́, "impeller."

teuhctli, a chief; *Teohuateuhctli*, "he who has the gods," Mexican official; *Moteuhçuma*, Montezuma, "he frowns like a lord;" root *deuk, Goth. tiuhan, draw; Lat. dūco, to lead; cf. Tukta Bey, Tartar chief.

teuhtli, dust; Skr. dhū, dhūnóti, move quickly hither and thither; dhūmá, smoke, vapor; Greek, *θύω*; Lat. fumus, smoke.

tezcatl, mirror, te + sca-tl; Skr. dīdi, shine? + Skr. chā-yā, shadow, reflection, charm; personified, wife of the Sun; *tezcatl* machiotl quitlalia, to set a good example; *Tezcatlipoca*, Mexican devil; (PAA., p. 50, where skiá was rejected for *táskara*); *sca*, Greek, *σκιά*, shadow.

ti, prefix, same as *2 te;* also Aryan affix *ti*.

tiçatl, *tiçactl, varnish; *white* clay; *tiçayoa* (ni), I varnish myself (paint?); *tiçauia*, (nitla) to varnish or dip; perhaps Skr. dī, dídeti, shine + sañj, saj, sájati, to stick; Lat. segnis, sticking; *tiçayoa*, tiçatl + *yoa;* Skr. yu, yāúti, to join, hold fast; if diç, to show, be taken, ç is soft before *a* contrary to rule (see *ticatla*); then *tiçatl iuitl* nic-tlalia, I give good counsel, must be "advice that sticks;" *i-vid*, to know, understand; Greek, *οἶδα*, **ϝιδ*; Lat. video; Eng. wit.

ticatla, midnight, at midnight; Skr. diç, diçáti, to point;

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díç, a point (end of day?); Greek, δείκνυμι, show; Lat. dico; AS. tāh; Ger. zeigen; AS. tāhte; Eng. taught.

ticitl, plu. *titici;* wise person, doctor, midwife, in latter case "consecrated;" Skr. dīkṣ, dīkṣeti, to consecrate. Religious feeling pervaded all the daily life of the Nahua and must be considered in comparisons, but cf. *ti* = 2 te + cit, to know.

tilana, (nitla) stretch; *tilauac,* broad (table, cloak); Skr. tirás, across; adv. crossways; (til + *ana*).

tilinia, **tilicnia,* (niqual) to give a hand to help one fallen; (nino) to gird self tightly; (nite) to seize with intent to commit rape; *tilictic,* stiff and bulging; Skr. dṛh, dṛṁhati, to be firm; Lat. fortis, *forctis, strong.

-tiuh, in comp. tona*tiuh,* the sun; Skr. dív, the sky; Greek, διός, *διϝός; Lat. div-us, divine; Germanic, the god Tiw; Eng. Tuesday.

tiuhtli, uel-tiuhtli (Mol.), eldest sister, transfer from daughter; Skr. duhitár; Greek, θυγ-ά-τηρ; Ger. tochter; Eng. daughter; (see *pitli*).

1 **tla,** pronoun, *it;* ni-*tla*-qua, I it eat; *itla* is "thing" and the two may be the same; *tlein, tle-in,* what; *tlein* t'ai? what are you doing? these pronouns are very elusive (see *itla*); = id + le-in(?); Lat. rē-s, "thing;" or tle-*in,* *id-rē-in(?); (for *in* with pronouns in Greek, cf. Brug., III, sec. 448).

2 **tla,** prefix, Skr. tṛ; Lat. trans, "through," or "by means of;" *tla*-chiuhtli, a thing done "through" doing; *tla*-cenquetzalli, a thing continued to the end; *tla* may be tṛ, "through," or *itla,* thing finished. It is not easy to differentiate this from *1 tla; tla* is sometimes an integral part of the vocable, as in *tlaca,* by day; *tlacoa,* to injure; (for double use in this sense, see *tlapoa* under *poa*); *intla* is a sign of the subjunctive, *yntla* onitla-qua-to,

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amo n'apizmiquizquia, if I had come and eaten I should not be dying of hunger (Olmos); (see *itla*).

tlaca, by day; *tlacapan*, a visible place; Skr. dṛç, see; Greek, *δέρκ-ο-μαι*; Goth. ga-tarkjan.

tlaçalli, a snare (hunting); *tlaçalolli*, a thing fastened to another, one who is detained by others; *tlaçaltia*, to take a thing forcibly; tla + çal; Skr. sṛ, sísarti, glide, rush; (see *çaliuhtli*, *çaliuyantli*).

tlacauaca, a murmuring of the people, vox populi, battle cry; tlacatl + uaca, Skr. vac, to speak; Greek, *ἔπος*, **ϝεπος*; Lat. voc-is; Ger. er-wäh-nen, mention.

tlacça, *tlac^{a}ça, to run swiftly; Skr. drā, drāti, to run, *drāka*, speedily + sah, to be capable of; Greek, *δράω*.

tlachia, (ni) to see; *tlachia* noyollo, to be circumspect; tla + chia, Skr. dṛ + ci, cikéti, to observe, notice, seek for.

tlacoa, injure, to sin; *tlaco*, fraction, half, a small Mexican coin; *tlaco* youac, midnight, "half-night-in;" ma ti-tla*tlacoa*, beware that you sin not; Skr. tṛ, tárati, to cross; tirás-kṛ, to treat disrespectfully, put aside; (for treatment of kṛ, see *coua*).

tlacotl, rod, wand; Skr. tla+çāta, slender.

tlaçotla, to love; Petolo qui-*tlaçotla* in Malinton, Peter loves Marie (Chimpo); etymology puzzling; Skr. tla+ sev+tlā? sev, sevā, to serve, attend, worship, also sexual intercourse + trā, "to protect;" cf. Osmanli Turk. *sev*, to love, *ton*, diminutive; cf. çuḍa+ra, "having," çudānta, the harem; *çud* is indicated by the *rev.* form, supra p. 17.

tlacotli, a slave; tla + cotli; Skr. çūdrá, fourth caste; cf. gó, cow; gotrá, a cow-stall or a race, "caste" (?).

tlaelitta, to abhor, hate; *tlaellatolli*, "bad" words; tla+*el*+itta; *el.* Greek, *ἔρ-ι-ς*, strife; Lat. lis, litis.

Tlaloc, Lord of the Terrestrial Paradise, god of clouds and rain; (PAA., p. 30) Skr. *indraloka*, Indra's place,

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heaven; but perhaps simply tlalli, *earth* + *oc*, Skr. vaj vajáyati, to be mighty; váj-ra, the thunderbolt of Indra, "the mighty;" Greek, ὑγιής, strong; Lat. vegeo, to be active; AS. wacol; Eng. wake.

tlamantli, *centlamantli* (Mol.), thing, object, a whole; tla + man-tli; Skr. man, to think, hence a concept, idea, thing grasped by the mind as a whole; cf. mantrá, thought, spell in incantation, plan.

tlami, end, finish; oncan *tlami* inin intlahtollo in teyacanque, there ends the story of the chiefs (Chimph., *Annals*, p. 275); Skr. tiráti, tárati, traverse + Skr. mī, to lessen; Ger. minder; Eng. mince.

-tlan, postpositive, place, country of; Aztlan, home land of the Nauatlaca; coat*itlan*, place of snakes; root, tḷl, tel (Brug., I, sec. 287), *t^{e}la-n; Skr. talas, surface; OBulg. tlo, tĭlo, ground, floor, "surface;" Ger. diele, a board; *tlani*, down, *tlalli*, the ground, *t^{e}la-li.

tlanaui, **tla-nazui*, to be very sick; *tlanautiuh*, go from bad to worse; sick person to get worse; tla + nāça, (naç) loss, ruin, death; (s, 16, cf. *çuma*, *moyotl*).

tlaneuia, (nic) to make excuses; (nino) borrow and return in kind; *tlaneuiuia*, redup., to have abundance; *tlaneuiuililiztli*, the act of comparing one thing with another; tla + neuia; Skr. navī, to renew; Ger. neu.

1 **tlani,** down; tla + ni, Skr. ni, downwards; Eng. *ne*-ther, lower.

2 **tlani,** *t^{a}la-ni, (nite) win from another at play; Skr. tṛ, tárati, tiráti, get through; tára, surpassing, "surpass him."

tlanitztia, (nino) to praise self, brag; to praise where no merit is, misrepresent; 1 tlani + Skr. sthā, to stand; "lower oneself."

tlanquaitl, the knee; tla + anquai-tl; Skr. tṛ + aṅká, an

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angle; Greek, *ὄγκος*; Lat. uncus; AS. ongel, hook; Ger. angel; Eng. angle; cf. *ecauastli*, a ladder.

tlaocolia, (nite) to take pity on; (nite) *tlaocoltia* (rev.), to seek sympathy; tla + oc + olia; Skr. uc, úcyati, be pleased, like; Greek, *οἶκτος*, pity; *ol*, vṛ, to wish.

tlapalli, color; *tlapaloa*, **tlapalca*, to dye cloth; Skr. tla + bhṛaj, bhṛājate; bhárgas, radiant; Greek, *φλέγος*, flame; Lat. fulgur, lightning; (see poyaua).

tlapaloa, (nino) to dare to do a thing; (nite) salute another; to cross one's path(?); tla, tṛ + *paloa;* Skr. pára, surpassing; reciprocal, paras-parādin, eating one another; pṛ, Lat. perendie, the day after; Eng. far, fore.

tlapalpol, awkward, tla + palpol; Skr. barbara, or bal-balā-karómi, I stammer; Greek, *βάρβαρο-ς*, unpolished; Lat. balbus, stammering; a "barbarian." The "barbara" were foreigners, non-Aryans. The absence of final "*li*" leaves an element of uncertainty, since it always means a compound; perhaps *pol* or *pulh*, indicating bigness and badness, or inferiority.

tlapaltic, strong; tla + pal + ti-c; *pal;* Skr. bhárati; Greek, *φέρω*; Lat. fero; Eng. bear. Cognates, ic-*pal*-li, a chair; *pal*-euia, to aid; tla*pal*iui, to be robust, grown up, a laborer.

tlapana, break, as dishes, *egg shells in hatching;* shell cocoa beans; Skr. dṛ + phaṇati, leaps, hops (cf. sphṛ); *tla*, Skr. dṛṇáti, cleave; Greek, *δέρω*; Eng. tear.

tlapic, vain, falsely; *tlapic*tlatoa, to speak falsely or without sense; *tlapictli*, thing made or created, demon(?) (Chimph., *Annals*, 1499); tla-pic; Skr. *piç, pinçáti(?), shape, prepare; píçuna, slanderous; Greek, *πικ-ρός*, bitter; Lith. piktas, bad; Goth. faih, deception; OIr. oech, an enemy; original meaning of piç does not agree with "false."

tlaquactic, hard; *tlaquauh*, loud, strong, as *tlaquauh-*

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tlatoa, to speak loud, halloo to another; *tla-quauh* yuuac (youac), very dark night; *tla*+*quac*-ti-c; *tlaquauh*nauatia, command imperatively; *tlaquauac* tecpatl, a diamond; Skr. karkara, hard, firm, for phonetics see *caqui*.

tlatia, (nino) hide self or *burn* self; (qui) conceal thoughts; çan qui-*tlatia*, he only conceals, is a hypocrite; Skr. tiráti, to cross; cf. Greek, *δράω*, act, practice, flee; to *burn*, tla+dī, dideti, shine, gleam, fame; (see *chinoa*).

tlatla, *tlatlas, (ni) ardere; burn self; *tlatlac*, burnt; Skr. tṛṣ, tṛṣyati, to be dry; Lat. torreo, *torset; Ger. dorren; (see *tlan*, *tlatia*).

tlatlacalhuia, (nite) to injure; in yuh tiquintla-popolhuia intech-*tlatlacalhuiâ*, as we forgive those who sin against us (Lord's Prayer, Luke); tlatla+*calhuia*, Skr. hṛ hárati, *ĝhel, steal, seize, destroy, frustrate attack; (see *tlatla*). If *huia* be separable, from hṛ, to handle, Greek, *χείρ*, hand, then the whole is: tlatla+*cal*, good+hṛ, "those who eagerly take away the good from us," and hṛ=ui-a; (see *calhuia* under *calania; ĝhel*, to injure, under *tla-uel-l*); (see 12 b).

tlatlacolli, sin; *tlatla* + *colli*, Skr. cāra, conduct, behavior, hence *tlatla*-colli, "ardent" or "excessive" actions; by extension, sin.

tla-tlama, (ni) to fish with a net; Lat. trāmĕo (transmeo?), go or pass through; trāma, the woof (weaving); mĕo, go, pass; (see *motla*).

tlatlauhtia, (ni) pray, ask; (nite) ask a favor; (nitla) *pray; tlauhtia*, (nite) do a favor; tlatla + Skr. vac, uktá, say, speak, say a prayer.

tlatoa, speak, tla+itoa; *tlatoani* (tlatohuani), one who speaks by authority; xi-tlatoa tepitzin Mexicopa, speak a little Mexican (Chimpo.); xi-tlaquauh-tlatoa, speak loudly (Arenas); tlein *itolo*, what is said, what is the news?

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(Chimpo.); see *itoa*; cf. Skr. vad, to speak, speak authoritatively; tla+*uid; Lat. vātes, seer.

tlauana, *tlahuana*, to get drunk; tla+*huana;* Skr. tṛ + pāna, drinking; (14); (see Chimph., *Annals*, 1476).

tlauele, angry, brave; *tlauelia*, to hate; telpoch*tlauel-iloc*, perverse, a tricky young man, rake; *tlauel*cui, to be abusive, get angry; tla+*ĝhel; Skr. hṛ, hárati, take by violence, steal; hṛṇīté, be angry; Hara, the destroyer, epithet of Siva, cognate qual-ani, angry; the dropping of the guttural indicates an earlier *uelli without the prefix tla; *loc*, Skr. lok, to "look," or ruj, "disease;" Greek, λύγ-ρος; Lat. lugeo.

tlauia, *tlauiza, (nitla) strike a light; (nite) to guide (with torch?); (nitla) to paint red; *tlauiz*calli, the dawn; tla+*uiz;* Skr. uṣ óṣati, vas, to light up; uṣás, dawn; Greek, *αὕω*, kindle; Lat. us-t-us, burned; *ηώς*, dawn; Lat. aurora, *ausosa; AS. Eōs-t-ra; Eng. Easter; tla-*uizc*-alli, Skr. ví, + çcand, "far shining."

tlaulli, *tlaolli*, maize, grain; Skr. tla+yáva, grain, later barley; Taylor (*Origin of the Aryans*, p. 28) thinks Skr. vṛhí, rice, is originally European rye; vṛ. gives Mex. *ul-li*, but the Mexican is probably simply tla+vṛ, ol-li, "the round thing."

tlaxtlauia, to pay; tla+ix+tlauia; neuatl *niqu'ix-tlahuiz* centlacolpan inic tlapatiotilli, I will pay half that price (Arenas); *ix;* Skr. iṣ, desirable thing+drav-ya, property (dru).

tletl, fire, tl+et-l; Skr. dāru, drú, tree; Greek, δρῦς; Goth. triu; Eng. tree+īdh, to burn, édha, kindling; Greek, *αἴθω*; Lat. aed-es; AS. ād, funeral pile; Eng. oast, a kiln to dry malt.

tleuauana, to stir up the fire; tletl+ua-uana; (see tletl); *uana;* Skr. vána, wood, hence "firewood;" *Quauh-*

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tleuanitzin (Chimalpahin), author of the "*Annals*" of the Naua, "Fire-Brand;" *quauitl*, stick, "poker."

tliltic, **tˈliltic*, black; Skr. dṛ, driyáti, to see; AS. tilian, to be intent on; *il-t*, Ger. zielen, aim at + OFries. irthe, the earth; Goth. airþa; Ger. erde; Greek, ἔραζε, hence black, "earth color;" cf. ἡ γῆ μέλαινα πίνει, the "*black*" earth drinks.

toca (o short), (nite) follow, accompany, frequent evil resorts; in comp. to *feign*, pretend; o-nimitz-micca *tocaca*, I feigned death before you; Goth. tiuha, tauh, taúhum, to draw; Ger. ge-zog-en; OHG. tziohan; Lat. dūco; (see teuctli); *to feign*, Goth. þugkjan, to seem; OHG. dunchen; two forms coalesced.

toca (o long), (nitla) to plant seeds; *toctli*, maize, "planted;" Skr. tok-man, green stalk; (nite) to bury; to *drown; perish;* OHG. dūhan, gi-dung-an, squeeze (press grain in ground with foot?); Lith. tvenkia(?), it gives pain; or Skr. tāḍka, "killing."

tocaitl, name; *no-toca*, my name; tlein *i-toca?* what is his name? Skr. dā, bestow, give+ketú, appearance, "distinguishes;" Eng. *hood*, as in maiden-hood.

tochtli, rabbit, very doubtful; cf. Skr. dhvas, to be off, perish; dhūsvara, "dust colored;" Turk. taushane, rabbit; Shoshone (Snake), toosha, rabbit; Natick, wau-*tuq*-es. "They have a reverent esteem for this creature and conceive there is some deity in it" (Trumbull, *Natick Dict.*); cf. Legend of Manabozho, "the Great Hare," and Hindu rabbit in moon; cf. tujati, hasten, "the runner," and *túc*, offspring, "the prolific one."

tolinia, to endure, to be poor; Skr. tul, toláyati, bear up; Greek, τάλος, wretched; Lat. tul-i; Goth. tulan; Eng. thole; cognate, *toloa*, to bow the head, to swallow.

tollin, a reed; "cats-tail," Hispanicized, tule; Skr.

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tula, cotton plant, panicle (Bot.); Greek, *τύ-λη*, swelling, lump; (see *tomauac*).

toltecatl, an artisan, a Toltec, a builder. The *Tolteca* who came to Anahuac late in the seventh century, A.D., were reputed to be great builders, some of the imposing ruins of Mexico being attributed to them. Uncertain; cf. Greek, *τύρσις*, tower, fortification, wall; Lat. turris, the same; Skr. forms are: *tur*, to run, conquering; *tur-yá*, superior strength; cf. *tur*, the root of *Turanian.*

toma, (nino) take off belt, (nitla) untie; (nite) get another out of jail; *uitoma* or *uituma*, to pull down a house; spurting of water pent up; Greek, *τόμα* (Dor.), a piece cut off, section; *ui*, Skr. *vi*, apart, away, as in *uitoloa;* cf. Algonquin, *tomahawks*, a tommyhawk, "hatchet;" ypan in mo-*huiton* [tom], panhuetz yn teocalli yn ical Huitzilopochtli, then "grew," became splendid, the temple the house of Uitzilopochtli, i.e., was rebuilding (Chimph., *Annals*, 1482); this *tu-m* is vi + *tu*, grow, swell; (see *tomauac*).

tomauac, fat, plump; *tomatl*, tomato; Skr. tu, távīti, to be strong (swell); túm-ra, fat; Greek, *τύλις*, lump; Lat. tum-ulus; AS. thuma; Ger. daum; Eng. thumb; perhaps *tomitl*, wool, hair, from swelled, puffy appearance of fleece; *ua-c*, affix *va* + c; or *vaṅçá*, "kind."

tonatiuh, the sun; tona + tiuh; *tona;* Skr. dūnóti, burns, "the burner"; cognates, *tonalli*, heat of sun, summer; *itonia*, to perspire; *tonal*-amatl, book of magic (?) or martyrology; if Greek, *ἴδος*, sweat, be Skr. svid, then Mex. *itonia* may perhaps be *svid + *tonia.*

tontli, (ton), a postpositive denoting depreciation, diminution; pil*tontli*, pilhtontli (Olmos), a *little* boy, *ueueton*, "little old thing;" Skr. dhvan, dhvánati, to become extinguished, to blacken; AS. dunn; Eng. dun.

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topal, fantastic; *topalquetza*, (nino) to be presumptuous; *tap*-a-l; Skr. tap, to burn, do penance; tápa-s, ardor, penance; tāpa, the same, "fantastic," clothed as a hermit or holy man(?).

topilli, staff, insignia of office; *topil*-e, a constable; Skr. tomara, a lance; cf. Tartar *topaz*, official truncheon of a khan.

tototl, bird; Skr. tud-á-ti, pushes, beats; Lat. tu-tud-i; allusion to bird's movements in flying.

tzaqua, (nitla) to close; (nite) stop or confine; *tzaqualli*, stopping place, *specifically*, pyramids of the sun and the moon at San Juan Teotihuacan, where Nanauatzin (moon god) and Tecuiztecatl (sun god) once sojourned; nihio mo-*tzaqua*, my breath stops (asthma); xic-*tzaqua* in mocamac, shut your mouth (Chimpo.); mo-*tzaqua* in quauitl, the rain ceases; Skr. saj, sájati, cling to; Lat. segnis, to stick; Lith. seg-ū, I fasten.

tzetzeloa or **-huia,** (nitla) shake (clothing, tree); sift, strain, pick or chip off; *tzetzel*iuhti mani, rain or snow falling; *tzeltilia*, chip off, pick at; **tzelc*, Skr. sṛj, sasarja, let loose from hand; throw, *pour* (rain), emit; *tilia*, Skr. dṛnati, split; Goth. ga-tair-an; Lith. diru; Eng. tear.

tzicauaztli, a comb; *tzicoa*, (nite) grasp or detain a person, to tie one thing to another; *tzicatl*, an ant, "strong one;" *chica-uac*, strong; Skr. dhṛ, hold, support, hold in check; Greek, *θρό-ν-ος*; Lat. frē-tus; + ka.

tzilini, to ring like metal; *tzilinia*, to ring as a bell; Skr. svar, to sound; Greek, *σῦρ-ιν-ξ*, flute; Lat. su-sur-rus, humming; Eng. swarm (bees); (see Uitzilopochtli).

-tzin, (honorific) honorable, great, as Cauhtémoc-*tzin*, last Aztec emperor; term of endearment, as nopil-*tzin*, my dear little boy; Skr. dhā, put, appoint, *ordain*, accomplish, as pūjāṁ vi-dhā, *show honor;* for cognates, see *chiua*, *teo;* (13); cf. Temu*chin* or *-jin*, the name of Genghiz Khan.

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tzintli, end, anus; tepetl i-*tzin*-tlan, foot of the mountain; *tzintia*, to ordain a thing; no ihquac *tzintic* [o-tzintic] in nemactiliztli, now [this year] marriage was instituted (Chimph., *Annals*, 1529, p. 212); Skr. sad, sit, settle down; Latin, sedo; Goth. sitan; Ger. sitzen; Eng. sit.

tzitzitza, (nitla) to bind firmly; syn. *cacatza;* tzitzi + tza; Skr. *sā*, to bind; *tzi*, si, (sā) syáti, to bind; Greek, ἱμας, *σιμας, strap; OSlav. sě-ti; AS. sā-da; Ger. sai-te, string.

tzomia, sew, blow the nose; Skr. sívyati, to sew; Greek, καασύω; Lat. suo; AS. siwian; Eng. sew; *blow*, Skr. svan, to sound.

tzontli, hair of the head; pelo (Mol.); as a numeral 400; *top*, *i-tzon-co* in quauitl, in the tree top; no-tzontecon, the head (comitl); Skr. sā́nu, peak, top.

tzopelia, sweeten, *tzot + pel; **tzot*, Skr. svadús; Greek, ἡδύς; Eng. sweet; *pel-ia*, "full;" (see *calpolli*).

tzotzopaztli, redup., tzo + tzo + paztli; blade, "sword" which drives the threads home in weaving; *tzo*, Skr. su, sū, suváti, set in motion; Greek, αἷμα σύ-το, the blood spurted; (for *paztli*, see *paçyotl*).

U

1 **ua**, plu. **uan**, adj. affix; Skr. *va* (Whitney, *Sanskrit Grammar*, sec. 1190); cf. *tuma-ua-c*, fat, tum + va + c with Skr. *pak-vá*, ripe; this "uac" may also be Skr. *vaṅçá*, kind, "plump kind;" *ua*, possessive as *tlatquitl*, riches; tlatqui-*ua*, a rich man. Cf. New Pers. affix *va*, *van*.

2 **ua**, "big," te-*ua*-palli, a big stone; Skr. bahú, much; (see *uapaua*).

uacalli, sort of cage for carrying things on the shoulders; *uacaloa*, to flute or stripe; Skr. vyaç, to encompass; *uacaliui*, to be weak nerved, crippled; Skr. vañc, váñcati, to totter, rock; Lat. vac-uus; vac-illo, to be weak, timid.

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uacqui, a dry thing; uac+qui; Greek, *φώγω*, roast; OHG. bahhu, bake.

ual, hither, this way; prefix to verbs; *ual*-lauh, to come; *ual*-cuepa, return; nehuatl ni-*ual*laz nican, I shall return here (Arenas); Skr. val, válati, to turn, return.

uapalli, table, a board or beam; ua+pal-li; ua, Skr. bahú, big, strong; (see *ua* and *tlapaltic*).

uapaua, uapahua, support, strengthen, get rigid; fig., to bring up children; ua+*paua;* Skr. bah, be thick, strong, much; Greek, *παχύς*; thick, strong; *πήχυς*, fore arm, **φαχυς*; *ua*, bahú, much; Ger. bug, shoulder.

-uastli, in comp., mammal-*uastli*, constellation Orion; fig., a protector; hence (astrology); (1) "house," Skr. vāstu, house; or (2) vas, to shine (as star); (3) *vas*, a *vest*-ment, "furniture" (*tzicauastli, ecauastli*); cf. Natick, *wetu*, house; Quichua, *huasi*, house; Eng. *was* (to remain); (see *Nanauatzin*, "dwelling with n-Ana"?).

uatza, to dry, soften; tle-*uatza*, roast meats; Skr. uṣ, burn; vas, uccháti, light up; Lat. ustus, burned.

uaualoa, to bark (dog); *uaualtza*, the same; Skr. bhaṣ, to bark + rū, rāúti, to cry, howl; Greek, *ὠ-ρύ-ομαι*; Lat. raucus; AS. rhyn, a roaring; (*s*, in bhaṣ, dropped, see moyotl); *ualtza*, cf. vṛṣa (end of comps. in Veda), "lustily."

uauana, redup., (nitla) to scarify the soil, rule paper, to make drawings; Skr. vap, vápate, shear, shave, pare nails, crop off, sow seed; vap-ra, mound of earth; ud+vap, dig up; (14).

uayolcayotl, blood relationship; ua+yolca-yotl; see *ua* and *uei*, large + Skr. vṛj, varjáyati, vṛjána, dwelling place or dwellers; by-form, *ualyolcatl;* also *uancayotl;* Skr. vañçá, "family"+otl.

uei, huei, large; *ueia*, to grow; make big; *ueia*tl, the

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sea; *ueyac*, long; cuix *ueca?* is it far? *ueca*tlaca, foreigners; quenin *ueca*tlaca amo ueuetzcâ noca? why do not foreigners laugh at us? (Chimpo.); *uecaua*, delay; tleica oan-*uecauh*que? Why did you delay? (Arenas); Skr. *vi*, particle indicating size, distance.

uel, good, very good; *uel*achto, firstly; *uel* axcan, just now; *uel* ca iyollo, content, good is his heart; *uel* ocachi tlatquihua, he is much richer; *uel*tiuhtli, eldest sister; Skr. vṛ, vṛnīté, choose, wish; Lat. volo; OEng. wol, wol not, wont; cf. Aryan *g^{v}hel; Skr. hṛ; Greek, ε-θέλ-ω, θέλω, be willing, wish, prefer, determine, be *able;* (see *tla-uel-e*, *ueliti*).

ueliti, (ni) I am able, possum; *vṛt; vṛ + affix *t*, to have a band or following; cf. Skr. mṛ-t-yú-ṣ, death; Avestan, as-ber^{e}-t, enduring much; Mexican thematic *i* = Avestan *e* (Brug., II, sec. 123); Eng. worth, be-*ware*.

uentli, an offering; *uen*tlamana, to make an offering; Skr. hu, guhóti, *ĝhu, pour into the fire, make oblation; Greek, χέ-ω *χέϝ-ω, pour; Lat. fons, fov-nt, fountain; AS. geŏt-an; Ger. ge-*gos*-sen, poured.

uetzca, to laugh; Skr. hásati; jask, to *laugh* or *eat*, ĝhas. (See Whitney, *Sanskrit Grammar*, sec. 640.)

uetzi, to fall; *uetztoc*, to be in bed; in comp., idea of acceleration as, tezti*uetzi*, grind rapidly, from *teci;* Skr. hu, to pour; Greek, χύ-σι-ς, fall (of leaves); Lat. fu-ti-s, water spout + Skr. vi, apart + si, to hurl, throw; "downfall;" (see *uen-tli*).

ueue, *ueuet, redup., old; *ueuetque*, *huehuetque*, ancestors or old men; Skr. *vatas, year; Greek, ἔτος *ϝετος, year; Lat. vetus, *old*, hence "yeared."

ueuetl, *ue-ueptl, a drum; Skr. vip, vépate, tremble, shake; Lat. vibro; AS. wæfre; Eng. waver.

-uic, -huic, in comp., near; çanye ma xitechmo-maquix-

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tili in i-*huic*-pa in amo qualli, and mayst Thou keep us from contact with the not-good (evil), (Lord's Prayer, Luke); Skr. viç, to settle in, vèçá, a house; Greek, *οἶκος*; Lat. vic-inus; Eng. vic-arage; cf. Algonquin, wiki-wami, wigwam; Natick, neh-*wek*-it, those in his household; Tupi, og, ok-a, house.

uica, carry, support; xic-on*uicacan* on [inon?], you (plu.) carry that (Arenas); aompa tla-*uica* in notequiuh, my work does not suit me; Skr. vah, *vagh, carry; Greek, *ὀχέω*, carry; Lat. vehere, *vectere; vehiculum, a wagon; AS. weg-an, to weigh; Ger. weg, a road; Eng. way.

uipilli, tunic, (mil) quilted coat of mail made of cotton; AS. wimpal; OHG. wimpal, veil, streamer, nun's wimple; OFrench, guimple; (g parasitic, as Guillaume for William); Eng. gimp, borrowed.

uiptla, day after tomorrow; ye *uiptla*, day before yesterday; uip + tla, Skr. vip, to waver back and forth + tla, (1) Skr. tráy-as; Greek, *τρεῖς*, *τρι-σί*; Lith. tre-ji, three "by three;" *tr-i (Brug., III, sec. 167); (2) tṛ, to cross.

uitequi, (nite) to beat or chastise; (nitla) thrash with a flail; (1) ui + tequi; *ui;* Greek, *ἶ-ς* **ϝι-ς*, power; Lat. vi-s, strength; (2) Skr. *vadh*, to beat; Greek, *ὀθέω* + qui.

uitoloa, (nitla) to bend a bow without shooting; *uitoliui*, to twist, mould clay; *uitoliuhqui*, an arched bridge; syn. ten-*olli;* Skr. vi, "away" + tul, toláyati, to raise, counterpoise.

uitz ehecatl, south-east wind or wind of the middle of the day; hot is indicated; Skr. uṣ, to burn; Lat. ustus; (see *tlauia*).

uitz, huitz, to come (only in pres. and perf. ind.); gives added meaning in comp., nitla-qua-ti-*uitz*, I come

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eating; Skr. viṣ, to be active; cf. bhūṣati, with same meaning.

uitzilin, humming bird; vi + tzilin; Skr. ví, bird; Lat. avis + Skr. svar, svárati, sound.

Uitzilopochtli, Mexican war god; left leg adorned with feathers of humming bird; uitzilin (which see) + *opochtli*, left side; "left" no doubt connected with Aryan "bad luck" legends, hence originally o-*poch*-tli, "the lucky," by euphemism; *o*, Skr. ā, "entirely;" *poch*, Skr. bhaj, to portion out (give or get); *bhagin*, happy, *bhaginī*, sister, "happy one;" Mex. ich-*poch*-tli, a girl; OPers. *baga*, god; Russ. Bog; (PAA., p. 114); cf. Algonquin, Mana-*bozh*-o; Natick, Nane-*paush*-adt, the moon, moon god; if bhūṣati, "the adorned one," he is still "the left hand" one apparently because *opochtli* is given by Molina for *left*, along with *chicoyotl*, which means suspicion; Skr. dhik, displeasure; dhik-kṛ, to reproach.

Uitznauatl, god of condemned slaves; uitz + nauatl; *uitz*, Skr. viṣ, the plebs, common people; cf. Vishnu; (see *naua*).

uitztli, a thorn; Skr. hṛs, hṛsyati, to be excited, to stand on end (as hair); Lat. horrere * horsere, to shudder, be horror struck; Ger. gerste, barley.

uiuixca, to tremble, shake; *uiuixcayotl*, the debility of a sick person who trembles and totters; Skr. vij, vijéti, to tremble; *visk, or vij + affix ka; OHG. weih; AS. wāc; Eng. weak.

-utl, -otl, common ending of nouns; called by Mexican grammarians the ending of *abstract* nouns; *tlacatl*, man, *tlacayutl*, humanity; *patiuhtli*, *patiotl*, price; *qualli*, good; qual-l-*otl*, goodness; *puchtecatl*, a merchant; puchteca-*yotl*, merchandise, but mo*yotl*, a fly, is certainly not an abstract; Skr. *u* or *ū* + tl; as tap, tápu, hot; dāra,

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darú, bursting; going further back the proethnic affix, *o*, *ā*, had the same meaning; as *gon, beget, *gon-o, a begetting; (Brug., II, sec. 60; see *2a*).

X

-x-, (*z*, *sh*), perfect ending as, *ni-tlachia*, I see; perf., o-ni-*tlachix*, I saw it or I have seen it; tla-*piuia*, to grow; o-tla-*piuix*, it grew; also, o-tla-*piuia-c;* cf. Aryan *s-aorist* as, *merĝ, Skr. á-mark-ṣ-am; Greek, *ἀ-μέρξ-αι*; *deiḱ, Skr. á-dikç-i; Greek, *ἔ-θειξ-α*; Lat. dīx-ī; (see *3 ca*); also sign of the future as *nitla-pia*, I guard; *nitla-piaz*, I shall guard; cf. Greek, *λύ-σ-ω*, I shall loose.

xalli, sand, *xayotl*, lees (of wine); Skr. sará, "moving," root, sṛ; *xalteil*, pebble; *teil*, tila, a small particle of anything.

xamitl, a brick; xa + mitl; Skr. sam, "together" + mitá, meted, same measure in length and breadth; Lat. mē-ta, a post.

xapotla, (nitla) to destroy a wall or fence; (nite) deflower a virgin; *xapot*-timotlalia, to rupture, burst; *xa* + *pot; sa*, "entirely," as in Mex. *cen;* Skr. sa-kala, "wholly" + Skr. puth, pothyáti, destroy; *la*, Skr. ra, give, bestow; or rā, "having."

xaqualoa, (nino) rub self; (nic) rub one thing against another, shell (peas); itech nic-*xaqualoa*, I rub two things together; Skr. *sa*, to be in common with + hṛ, hold, get, take, "handle;" Greek, *χείρ*, the hand; (for hṛ, see *qualani*).

xaua, to adorn self in Indian style, paint, (mo) ripening of fruit; Skr. çaraṇá, a covering; Lat. color; oc-*cul*-ere, to conceal; cf. Ger. hülle, hull, covering; cognate, *calli*, house, *καλιά*.

xayacatl, the face; A-*xayaca*-tzin, "Rain in the face,"

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Tlatohuani (King) of Tenuchtitlan, 1469; xa + yacatl(?), the nose, "point"(?); Skr. *sa*, connection, unity (with the nose); *yacatl*, nose; *yaca*-tia, to sharpen, to be first; *yac*-achto, to be first (see *yacana*); or *ac* (see *acatl*).

xeloa, (nitla) to divide, portion out; *xexeloa*, (nitla) to divide, to break up ground; (nite) divide the people into parties; *xeliui*, to split in two; Skr. çṛ, cīrṇáti, break, crush.

xiço, to be well; *xiçotzi*, agreeable, otorgando, said only of women; "tractable;" *xiç + o;* Skr. çis, çinášṭi, çiṣṭá, to separate, hence distinguished, a "good person;" (for *o*, see *2 a*); (see phonetics of *quetza*).

xicotli, "a big honey bee that bores in the trees;" cf. Skr. *si*, to dart + guh, hiding place, hole.

xictia, (ninote) to hold another in small esteem; (ni) *xicuetzi*, to lose one's honor; *xicoa*, to be angry; (nite) make fun of; *xic*caua, to lose a thing through negligence; Skr. root in all, sic, pour out, be *arrogant;* CSl. sicati; Ger. seichen, to strain; Eng. silt; (see *uetzi*, *caua*).

xictli, the navel; Skr. ji, jinóti, enliven, quicken, also jinv, and jīv; Greek, *βίος*, life; Lat. viv-us; Goth. qiu-s; OHG. quec; AS. cwic, cwicu, cwucu, cucu; Eng. quick; gen. meaning of all, to be alive, to be "quick;" suffix *k* only in Germanic and Mexican; the *navel* being the attachment of the life-cord of the fœtus, the allusion appears to be to the "quickening" of the embryonic being; cf. *xictia*.

xicuecueyotl, "large wrinkles on the bellies of old men and old women;" *acuecueyotl*, a wave; *acuecuexatl*, (Chimph.), ic niman qui-ualhuicaque in Mexico in *acuecuexatl*, soon the flood arrived at Mexico (Chimph., *Annals*, 1499, p. 172); *cuech*, Skr. kṛṣ, karṣati, draw furrows, draw; (for *xi*, see *xillantli*).

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xillantli, flank, belly, womb; xi-l-lantli; *xi;* Skr. sā, si, syáti, bind; Lith. se-tas; Ger. saite, string; or *xic,* in *xictli,* the navel; *lantli;* Skr. lamb, to hang down; Greek, λοβ-ός; Lat. limbus, border, fringe, belt; AS. læppa, loosely hanging; Eng. lap, limp, lop; (cf. *xipeua*).

xinachtli, seed, semen, sprout, cutting; *xinachoa,* to sow grain; *xin* + *achtli;* perhaps Skr. sína, "provision," "seed" + *as,* to *throw,* as in sowing grain; (see *achtli*).

xini, fall, as wall; *xitmi,* the same, destroy; *xitinia,* (nitla, nic) to destroy; in qui-*xi-xitinique* nouian in inteocal ihuan in imixiptla tlacatecollo in quimmo-teotiaya in huehuetque tocolhuan, they destroyed everywhere [with us] the temples and the images of the devils, those which the ancients, our ancestors, worshiped (Chimph., *Annals,* 1534); Skr. chid, to cut off, hew down; Greek, σκίζω; Lat. scind-o, rend, split; (for *mi,* see *tlami*).

xiotl, shuttle (weaving); Skr. su, suváti, impel, set in motion; Greek, σεύω, σύτο, shake, drive, impel; Goth. skewjan; AS. sceatel; Eng. shuttle.

xipeua, to shell peas or beans; *xippachoa,* to cover with grass, weeds, smother crops; *xip,* Skr. çipí, çipitá, something superfluous; meaning in Mexican evidently "covering;" (see *eua, pachoa*).

xipe, god of the goldsmiths, cf. Skr. Cipi-viṣṭá, an epithet of Vishnu and Çiva; the victims of this god were *flayed;* (see *yolcatl* and PAA., p. 162).

xiuitl, *xipitl, grass, year, turquoise, comet, grass; Skr. *çipí, çipitá,* cípkā, a fibrous or thin root; (see *xipeua*); *xip-palli,* the color of a turquoise, "grass color;" the ancients had very indefinite ideas of color and confused even *blue* with *black;* (14).

xococ, sour; *xoxouhqui,* *xoxocqui(?), green, raw, unripe; fig., *free; xocotl,* fruit; fig., young, younger brother;

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specifically, apple; generic, fruit, as naranja xocotl, an orange; *sour*, Skr. çuc, burn, give pain; *free*, çúci, pure, honest; *xoc*-paleuac, summer; Skr. çúci, summer; cf. Lat. suc-us, juice; OHG. sucu; AS. suce, suck; Eng. suck.

xolhuaztli, a clothes brush; cf. Skr. surí, impeller, active agent; or sāra, "removing;" *uastli* as an article of furniture occurs frequently in Mexican; (see *ecauastli*, *tzicauastli*, *teponastli*); also as "house" see *Nanauatzin*.

xolo, a slave, page, nurse, serving man; *xolopitl*, a dunce; Skr. çālā, house; çālāgni, the domestic fire; (for *pitl*, see *molictli*); cf. sāla-s, "lazy."

xolochtli, a wrinkle; xo + lochtli; Skr. *su*, intensive, well, thoroughly; *lochtli*, Skr. ruj, break, injure; Greek, λυγ-ρός, painful; Lat. ruga, a wrinkle.

xonexca, to advise, to warn; (MAP., Skr. jānati, to know; Greek, γιγνώσκω; untenable); Skr. su, well + niç-caya, conviction, *persuasion;* etymology uncertain.

xotl, the foot, comp. only, as to-*xo*-pil, the toes; Skr. kṣud, to stamp upon.

xotla, xo + tla, to dry up (ground); burn (coals); to bud (flowers); Skr. kṣā, kṣāyátì, to burn; (kṣ 16); for *tla*, see tlatla; cognate, *xo*uatza, to become lean.

xuchitl, xochitl, a flower; *xuchioa*, the blooming of a rose tree; *xuchiotl*, fat around the entrails; gen. meaning, bright, shining; Skr. *su*, well + dhā dhita, "well made."

xumatli, xumalli, xomatli, a ladle, dipper; xu + matli; *xu*, Skr. su, extract, liquor + matli, Skr. mā, to measure; cf. sóma, the Vedic drink; this word illustrates the Mexican method of noun endings, *tl* (*tr*) and *l-li*, (*r*).

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Y

yacana, to guide, lead; *yacatl*, the nose, "pointer;" *yacatia*, to point; same as *acatl;* cf. Skr. rā́jati, direct, rule; Lat. reg-is, king; Goth. reiki; AS. rīce, dominion; (*r*, 12, 17).

yacapichtlan, place of painted or adorned noses; yacatl +pich+tlan; *pich*, adorn, yhquac yah Quetzalcanauhtli in ompa Coyohuacan teyaca-*piqui-to*, then Quetzalcanauhtli went to Coyohuacan [Yacapichtlan] where he adorned their noses; (Chimph., *Annals*, 6th Rel., 1332); Skr. piç, to adorn; Lat. pic-tor, a painter; ç here develops *two* forms: pich(sh), piq(k).

yamaztia, (ni) to be assuaged, mollified; *yamaztic*, smooth, soft; Skr. ra?+mṛsna, soft, smooth; *yamania*, synonym, ram? quiet + mi-a; *az*, aç or añc.

yancuic, new, recent; metztli *yancuic*, the new moon; Mod. Pers. yanki, new; *c* adj. ending, etymology uncertain.

yaoyotl, war, battle; *yaotla*, or *yaochiua*, to make war; root, *yaot;* ipan inin acito xochi*yaoyotl* in ompa Chalco-Atenco, in this [year] began the "flower war" at Chalco-Atenco (Chimph., *Annals*, 1376); Skr. yudh, yúdhyate, to fight; Greek, *ὑσμίνη* **υθ-σμ-*, battle; *a* in root may be explained by vṛddhi (Whitney, *Sanskrit Grammar*, 226).

yappalli, black; yap+palli; *yap*, Skr. ápa, away, forth; Greek, *ἀπό*; Lat. ab; Eng. off; hence "off color;" (see *tlapalli*); *y* euphonic; better **yac-palli*.

yaualtic, round, *circular* (as round table); Skr. yā, yā́ti, go+vṛ, to encompass; *coyaua*, to enlarge, a hole *coyaual (?); *ololiuhcayotl*, round, spherical; see *ololoa*); round, like a column, *mimiltic*, see *mṛ* in *molictli*, *malacatl*.

yauh, to go; pres. ni-*yauh;* fut. ni-*az;* perf. o-n'*ia;*

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Skr. yā, yā́ti, go; Panj. ya-na; cf. Arabic ja, to come, yalla, to go; ya Allah?

yayactic, blackish, *yauitl*, black, brown corn, maize; Skr. rajás, dark; Goth. riqis; Eng. rack, clouds; (*r*, 12).

1 **ye,** *yeuatl*, pro., he, that; Skr. ya, which, what, originally that; Eng. yon; *yeuatl*=ye-sua-tl; Skr. sva, self.

2 **ye,** adv. in constant use, already, past, always was; *ye* uiptla, day before yesterday; *ye* iloti in metztli, [already] the moon wanes; *ye* tocon-chiua çan tepiton, as yet we have done very little (Arenas); Skr. evá, custom; in this way, so; Greek, *αεί* **αϝει*, always; Lat. aevum, an age; Goth. aiw, ever; Eng. aye, ever.

yecoa, *yelcoa (nite) cohabit; (nitla, nic) achieve, finish; aoc nocon-*yecoa*, I am not able to endure a person; Greek, *ἔργ-ον*, *ἔργω*, work; Goth. vaúrkja; OHG. werc; Eng. work; also parallel stem, *ἔρδω* **ϝεργίω* (Brug., IV, sec. 706); OHG. wirk; root, *u̯erĝ.

yectli, good, virtuous, just, right; ma*yectli*, the right hand; Skr. ṛj, rīj, rījáti, reach out (straight); Greek, *ορέγω*; Lat. rec-te, right; OHG. reht; AS. rec-ian; Ger. recht; Eng. right; (12, 17).

yetic, heavy; y+eti+c; Skr. áti, excessive; *áti*-bhāra, excessive burden; *y* introductory glide.

yezhuahuacatl, a Mexican official of high rank (Chimph., *Annals*, 1431); *(y)+ez+du-a+huac-a+tl, *y* euphonic glide; *ez* Skr. iṣ, éṣṭa, worship; dū, duva-s, "offering"+vac, váca-s, request; "he who requests the offerings;" dū form of dā; *vac*, Greek, *ἔπος* **ϝεπος*, word; Lat. voco, vox.

yhuitl, down, feathers; Skr. vi, bird; Lat. avis.

yoalli, *yualli*, night; tlaca *youa*-c, midnight; tlaca tiuallaz amo *youal*-tica, you will arrive by day, not by night; Skr. ā+vṛ, vṛnóti, cover, conceal; āvṛ-ta, "covered;"

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hence, the "curtain of night," "the concealer;" ā intensive adv., entirely; *y* euphonic glide; cf. váruṇa, the "Encompasser" of the Universe.

yocatia, (nite) to deceive; (nicno) to appropriate a thing to one's self; *no-yocauh*, mine ("thing which is mine"); Skr. yāc, yā́cati, ask, beg, woo, as a girl in marriage (rev.).

yocoani, god, the creator; Skr. yuj, yunákti, prepare, make ready; Greek, *ζεύγνυμι*; Lat. yungo, to yoke; Ger. joch; Eng. yoke; or Skr. *yu*, to unite + *coa-ni*.

yolcatl, a slug, grub; *yolcaẏotl*, saliva, froth, food; *iyolca*, cream, oozings; *yolca*xipeua, (nite) flay another alive; Skr. ū́rj, sap, strength; Greek, *ὀργάω*; Lat. virga, a swelling twig; *y* euphonic; (see *xipe*).

yoli, to live, be conceived, alterarse el miembro, ardere; oti-*yol*, [yolh] otilacat, otimo-tlalticpacquixtico, thou wert *begotten*, thou wert born, thou hast arrived on earth (Olmos, "Address of a Father to his Son"); *olin*, *ollin*, is an undulatory motion, as a wave, *tlalolin*, earthquake; or direct motion, as *olin* in tonatiuh, movement of the sun; all these indicate Skr. ūrmi, a wave; Greek, *ελύω*, to turn; Lat. volvo, to revolve; Eng. wal-low, well; *yollotl*, *olotl*, the heart, "the roller."

yoltompochtli, a fool; yyo an *yoltompochtin* ihuan yetic in anmo-yollo, oh ye fools and slow of heart, Luke 24:5; yol + tom + pochtli; *tom*, heavy, darkened (spiritually); Skr. tam, tāmas, darkened; Lat. tenebrae; OHG. demar, dusk; Ger. dämmerung; *yyo*, Zend. voya; Eng. woe.

yopeua, (nitla) despegar algo, unloose, disjoin; Skr. yup, yopáyati, to obstruct, thwart + eua (?).

yopiueuetl, a small drum carried on the *person* in battle; *ueuetl*, a drum; ça no ye ipan in *itlahuiz* (trousseau)

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yn Axayacatzin *yopi*huehuetl in qui-mamaya, also in his war-gear Axayacatl carried a yopiueuetl (Chimph., *Annals*, 1480); *yopi*, Skr. rup, lup, lumpáti, attack; in Germanic, spoils; AS. reāf, booty; OHG. rouban, to rob; OFrench, rober; hence *robe*, garment; cf. *yupa*, allusion to sacrifice; (*r*, 12, 17).

yuh, adv., so, as, thus; xinech-itta in *yuh* nimitz-itta, see me as I see you; *yuhca* (yuh+ca) noyollo, such is my idea (heart); *yuh*cayotl, nature of a thing, kind; Skr. yuj, yunákti, "make ready" in gen.; yóga, use; yuh is very frequent in comps. or introductory, as, *yuhca* noyeliz, such is my custom; *yuh* m'itotia, so they say; *yuh* nenqui, a bachelor, he is, so to speak, nothing or a "do nothing."

yuhti, *iuhti*, first time; in locution quin *iuhti;* iuh+ti; Skr. yuj; yuk-tá, preparation; yug-ādi, the beginning (of the world); or Skr. yú-van, young; Lat. juvenis; Germanic, *yuvunga; Ger. jung; Eng. young, youth.

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INDICES

It is believed that the indices here given in *five* languages will serve the purpose of linguists in all parts of the civilized world. Hence "scattering" words in various languages have been omitted, since their insertion would meet no real want. *English* has been made the leader in *Germanic*. The Sanskrit index will require no explanation for Sanskrit scholars, but for the benefit of those who know little or no Sanskrit, I have given developed forms as well as *radicals*. The *verb* offers the chief difficulties, owing to the complicated development of forms. Thus *vip*, the root, to waver, is in Sanskrit dictionaries: vip, vépate, he wavers; from the root *yu* springs *yaúti*, to join, and *yuyóti*, to repel; *vac*, to speak; *vákti*, he speaks; *uktá*, spoken. *Reduplication* is frequent in Sanskrit and more frequent in Mexican, as Sanskrit dhā, put, dádhāti. This scheme is not strictly followed in all cases.

The supplementary Mexican list includes cognates not given under the *captions*. Owing to compounding, Mexican words may not always be found under my captions, thus *cel*, *celli*, does not exist as an independent vocable. Molina gives *icel*, himself only. He gives *maytl*, hand; *noma*, my hand (under *n*). Siméon analyzes everything.

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MORPHOLOGY OF THE MEXICAN VERB

COMPARED WITH THE SANSKRIT, GREEK, AND LATIN VERB

ALSO MORPHOLOGY OF MEXICAN ABSTRACT NOUNS

WITH AN APPENDIX DISCUSSING NUMERALS, PHONOLOGY OF LABIALS, ETC.

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INTRODUCTION

This is the fourth instalment of my work on Nauatl or Mexican as an Aryan language. In 1907 I published a brief monograph, *Mexican in Aryan Phonology.* In 1908 appeared *The Primitive Aryans of America*, which gave a rather extended treatment of language in general with several chapters on the migrations of the Nahua, the Aztlan legend, and the culture of the Aztecs. In 1909 I issued *A Mexican-Aryan Comparative Vocabulary* containing the common root-forms of the language. The comparisons found under *Morphology* are almost exclusively between Mexican and Sanskrit because of the intimate relationship existing between these two tongues. Greek is however an important factor. I regret this narrowing of the field practically to Indo-Iranian, but Latin and the Germanic languages do not furnish the parallel forms unchanged in sufficient numbers to be of practical utility here.

The *Numerals*, to four inclusive, are identical with matter furnished for the *Encyclopedia Americana.* The phonology of the *labials*, initial *y*, and the *nasals* is greatly expanded. Under "Remarks Suggested by Criticism" are some points pertaining to the subject in general. Each step in the work naturally clears up some previous doubts.

T. S. DENISON

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MORPHOLOGY OF THE MEXICAN VERB

A. THE AUGMENT

The augment is always *o*=Vedic *ā*. It precedes the personal pronouns: o-ni-tla-uica, I it carried; Skr, vá-hati, he carries. The prepositional prefixes such as Skr, prá, before; Greek, *πρό*; Lat, pro, are very unusual in Mexican and may be said practically not to exist compared with their fertility in other Aryan languages. Prá is no doubt found in Mex, piasti-c, slender, long; Skr, prásiti and *con* in coanotza, to be convivial. *On*, Skr, ána; Eng, *on*, is frequent, as *on*-itta, to visit. But there is nothing beyond vestiges. In the use of the augment a form like *αναβαίνω*, *ανέβην* is impossible. O-mo-ual--cuep, he turned back, might seem to be an exception, but *ual* is an independent verb; Skr, válati (see "Compounding," p. 29, *infra*).[1]

B. ENDINGS OF THE PRESENT INDICATIVE ACTIVE

In preparing this classification of the Mexican verb I have examined over two hundred verbs, practically all the common verbs in the language. The word *root* is used for convenience to indicate any identical form, as tle-ua-uana; Skr, vána. A form like *ta-taca* is usually a reduplication.

I. *Verbs ending in -a.*—This class comprises about one-fifth of the whole number of verbs. In Sanskrit these verbs are all *accented* on the *root*. None of the

[1] The augment is omitted in about half the cases as in Vedic (Whitney, *Sanskrit Grammar*, 587*a*).

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-a class have *l/r* final in the root. *Examples:* Mex, uica, carry; Skr, váhati, *ueg̑h; Mex, teca, care for; Skr, tákṣati; Mex, maca, to give; Skr, máṅhate (mac-o-cui, get large); Mex, ta-taca, to scratch; Skr. dih, dégdhi; Mex, tla-pana, to crack, pop (as egg-shell); Skr, phaṅati, leap; Mex, qua, eat; Skr, khádati; Mex, tzaqua, fasten, stop; Skr, sájati, it sticks; Mex, tena, groan; Skr, stánati, roar; Mex, choca, weep; Skr, çóçati, grieve; Mex, cuica, to sing=cui+ca; Skr, gír+gáyati, "sing a song"; Mex, çuma, to frown; Skr, çuṣma; Mex, tzi-tzi-tza, to tie; Skr, syáti; Mex, quiza, go out, finish; Skr, çiṣ, çináṣṭi, leave(?); Mex, tetzaua=te+tzaua, coagulate; Skr, styā́yeti; Mex, uatza, to dry; Skr, us, óṣati, light up; cf. vas, uccháti.

Root forms: çaça-maua, to mow; root māu; *αμάω*; aua, to scold; Skr, áva, ámīti(?); toma, to grow, enlarge; Skr, tu, távīti; Greek, *τύ-λη*, a swelling; Mex, toca (*o* long), to plant seeds; Skr, túc, tṓk-man, a green stalk; Mex, iua, to send; Skr, ínvati, send; (*n*, see *nasals*).

II. *Verbs ending in -oa.*—The class ending *-oa* includes about one-fifth of all the verbs. In Sanskrit this class has the *stem* ending in *-a* accented, or a root ending *l/r*, pure or in combination. *Examples:* Mex, pachoa, to bend; Skr, bhujáti *bheu̯g̑h; Mex, ixpechoa, to put on (as a wrap); tla-pechtli, a bed; Skr, paçyáti, to fasten (on); Mex, xicoa, to lose (as a thing or honor); Skr, siñcáti, to pour out; Mex, ozcoa, to warm self by fire; Skr, vas, uccháti, light up; ustus, burned; Mex, pixoa, to sow seed; Skr, bíja (bijá?) seed; Mex, ecuxoa, sneeze; Skr, cvásiti.

Involving l/r.—Mex, paloa, to taste; Lat, palātum; Mex, amomoloa, the waters murmur; Skr, marmára, a murmuring; Greek, *μυρ-μύρ-ω*; Lat, murmur; Mex, toloa, to bow the head; Skr, toláyati; Mex, ua-ua-loa, to bark; Skr,

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bhasámi *bhelso; Mex, xeloa, to divide, cut up; Skr, çṛṇáti, break; Mex, piloa, to hang on to a thing, persevere; Skr, bṛháti, to draw toward one's self, embrace, strengthen; Mex, cuechoa, to stir, grind, *kershoa; Skr, kárṣati or kṛṣáti, to plough; Mex, cuiloa, write, paint (cover with pictures); Skr, kiráti, cover with; Lat, oc--cul-o; Mex, ma-teloa, rub the hands together, chafe; Skr, tala, surface, "on," (to place on or under); tala-ghóṣa, clapping the hands; Mex, tlacoa, to injure; Skr, druhyáti, to hurt, *dhreugh; cf. Skr, tṛ, tiráti+kṛ, tiraskṛ, to treat disrespectfully.

III. *Verbs ending -i.*—The verbs ending -*i* number one-sixth of the whole. In Sanskrit about half of the cognates are accented on the thematic vowel. Some of the -*i*- endings appear to be idiomatic and a question of *phonetics*, and consequently cannot be explained by Aryan analogies.

a) *Compounds with* kṛ *or* grah (qui), *as final determining member;* Mex, ilnamiqui, to recollect, il+nắma-n, name+grah; cf. Skr, nāma-grah, mention the name; elimicqui, to stir the soil, labor, *eli*, ăra, ground+Skr, miç; Greek, *μίγ-νυ-μι*; Lat, misceo, mix.

b) *With vocalic* ṛ, -qui (above); Mex, cui, to seize; Skr, grah, gṛbhnáti; Mex, iquiti, to weave; Skr, kṛ́nti or grathnáti(?).

c) *After final t* (of root or derivatives); Mex, iloti, revolve, turn; Skr, luthắti; Mex, mati, to think; Skr. matí, thought, mányati; Mex, ueliti, to be powerful; Skr, vṛ+t, to have a following; Mex, yoli, to become, be conceived, *yolti; Skr, vṛt, vártate, turn, happen, live, *ɥert; Mex, xini, cut, destroy; Skr, chid, chinnáti (or chid+ni affix?); Mex, tzinti, to begin, tzintli, anus, end; Skr, sad, sídati, to sit, settle down; ā+sad, to get, approach; Mex, mamali,

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to bore; Skr, mal or *mṛdnáti; *exception*, Mex, itta, to see; Skr, vétti(?) to know.

d) *Root forms:* mani, to be (remain); Skr, man, mamátti; Lat, man-ĕ-o, remain; Mex, temi, to be full, AS, tyman(?) to teem; Mex, nemi, to live, exist; Greek, *νέμω*, to inhabit; Ger, nehmen, to take, get; Mex, cecui, redup, get cold *ĝhi-mo; Skr, himá-s, cold; piqui, to invent, cuicapiqui, write a song; Skr, piṅçáti, to adorn; Lat, pictor; Mex, aqui, to enter, fall in hole, unite; *aⁿĝh, "tie together"; Greek, *ἄχος*; Lat, ango; Mex, neci, to appear; Skr, náçati (fut. naⁿksyáti); Mex, teci, to grind; Skr, daⁿc, dáçati, bite(?); Greek, *δάκνω*; Goth, taihjan, tear, rend; Mex, aci, to attain, arrive; Skr, açnṓti, reach; Greek, *ἤν-εγκα*; Mex, tlami, to end, finish; tla+mi; Skr, minấti, diminish; Greek, *μι-νύ-ω*; Lat, min-u-o; Mex, ilaqui, springing of water into a sinking boat; Skr, laⁿgháyati, mount, enter.

Remark 1.—All these have *m* or *n* (nasal) in the root. Compare verbs ending *-nia;* and Aryan affix *-i;* Mex, tena *stena, groan; Skr, stan-i-hi, thunder; Mex, ecuxoa, sneeze; Skr, çvás-i-ti, snort; Mex, no-ma-cepoa, my hand is asleep; Skr, svap-i-ti, to sleep.

Remark 2.—Accent in all is about equally divided between root vowel and affix.

IV. *Verbs ending -nia.*—The verbs ending *-nia* constitute one-eighth of the whole number. These verbs appear: (*a*) to be denominatives from nouns ending *-ni* (see -oni, Class X). Skr, váh-ni-s, a beast of draught; yṓ-ni-ṣ, lap; mē-ṇí-ṣ, a missile. Cf. Mex, Ilhuica-*mina*--tzin, "sky-shooter," he who hurls his darts at the sky, name of two chiefs; Mex, caxania, to have a relapse; Skr, kásati, to hurt; Mex, tolinia, to endure; Skr, toláyati; Mex, mecania, to hang, a man; (*nino*) to hang self; cf.

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Armenian, mec-ani-m, I hang on to; Mex, calania, to polish, rub; Skr, cálati, stir.

Remark 1.—Some of these may perhaps be classed as theme + Skr, nī, "to lead to."

b) Root forms containing *n* with accent in Sanskrit on thematic vowel; Mex, chopinia, to bite, prick (tzopinia); Skr, çula, spear, pain + bhid, bhinátti (cf. su, impel + bhid); Mex, xitinia, to destroy, cut to pieces; Skr, chid, chinátti, to split *skid; Mex, tilinia, to use force; Skr, dhṛ, dharti; cf. Skr, dṛ́hyati; Lat, fortis, *forctis; for last chicaua *dher$\widehat{g}$h, Class VI. Mex, tzomia, to blow (nose); Skr, svánati (*m* for *n*); Mex, noquia, spill (diarrhea); Skr, muñcáti (*n* for *m*); Mex, nanquilia (not "reverencial"), to name or reply = nāma + quilia; Skr, gṛnáti, to speak; gír, voice; Greek, γῆρυς, speech; Lat, garrio, talk; Eng, call; Mex, quechia, to cling to, *lean* on; Skr, cliṣyati has *n* in cognate çri; cf. Greek, κλίνω; Lat, clino; AS, hlinian; Eng, lean (away from perpendicular). Compare root forms of verbs ending *-i*.

Remark 2.—A few verbs ending *-au-i* (m = *u*), may be placed in this class with loss of m/n. Mex, ciaui, to be tired; Skr, çrā́myati; Mex, mayaui, to throw down, or away; maitl + yaui; Skr, yácchati, *jm-sk̂eti; *loss of s:* Mex, tlanaui *tla + nazui, to be sick; Skr, náçyati; or Greek, *ναυσία*; poui, to be conspicuous; Skr, bhā́sati.

V. *Verbs ending -ia.*—A few are verbs which seem in some cases to be variants of verbs ending *-i;* aqui, aquia, to enter; tzilini, tzilinia, to ring. Others have different significations as homonyms without apparent cause of differentiation; atemi, a + temi, to be dropsical; atemia, to get full of lice; atemitl, a louse; the first form may be considered an adjective like tlatlati, one who guards the fire; tlatlatia (reverencial), to make a fire; but the verb

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is distinctly in both forms: tlami, to end, or tlatlamia; moloni, to be (set) in motion; molonia, to soften.

Root forms: tzopelia, to sweeten; *tzot + pelia; Skr, svādúṣ; Greek, ἡδυς + pṛ; pia, to hold, have; Skr, pā; chia, to wait; Skr, dhā; tlachia, to see (p. 16).

VI. *Verbs ending -ua* (*a-ua?*).—This is a small class numbering one-twelfth of the whole. This ending springs from very different sources, and some of the verbs are difficult to determine with certainty:

a) *Involving l/r:* Mex, naua, to dance; Skr, nṛ+t; Mex, xaua, to paint the face; Skr. çaraná, a covering; Lat, oc-cul-o; Mex, caua, to cease doing a thing, delay, stop, break ranks, quit the road, accompany, prevail over, carry, tarry, visit; Skr, cárati, go, roam, perform, wander, approach, accomplish, wait on, arrive, depart, seduce; Mex, cuechaua, to soften, wet; Skr, kṣárati, to flow; Mex, chicaua, get strong; Skr, dṛ́hyati; Lat, fortis *forctis; perhaps better, dhí+caua (see *tilinia*, Class IV [*b*]).

b) *Involving loss of palatal, velar, or s:* Mex, paca, to cleanse; pau-aci, *psa-aci, to cook; cf. Skr, pácati, to cook, ripen; Mex, çaua, to fast; Skr, sáhate, to be master, conquer, endure *sē$\hat{g}$h (cf. kṣam); Mex, alaua, to glide; Skr, rā́ṅhati(?) *ra$\bar{n}\hat{g}$h (cf. lásati); Mex, poyaua, to dye = po+yaua; yauitl, reddish or black corn; Skr, rájati, to dye, or *rudh-ro-s, red.

c) *Root forms:* çaça-maua, to mow, Greek, *αμάω*; Eng, mow; Mex, aua, to wrangle, divorce; Skr, áva(?) "away"; Mex, pinaua, to be ashamed; Greek, *πεινάω*, to be poor, *πίνος*, dirt; Mex, tetzaua, to coagulate = tetl, stone + tzaua; Skr, styā́yeti, to coagulate; chamaua, to commence the season of ripening corn and cocoa, to grow, jactarse; Skr, sam, with + ávati, to set going, refresh.

VII. *Verbs ending -eua.*—A small class. (*a*) A

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typical verb is eua, rise, go, join (in battle), eua-ti-ca, to be seated; Skr, ṛ, ṛyarti, ṛnóti, rise, send, put, fit, "go for," in bad sense; Greek, ὄρ-τω; Lat, orior, rise; Mex, teneua, to speak (=tentli, word+eua); pocheua, to smoke, to brown bread baking; poctli, smoke; Greek, πυκάζω + eua; euh-t-eua, to rise in haste; Skr, ayú, quick; Greek, ὠκύς+eua; ixconeua, to attack=ixco+(ni) eua, "I meet him face to face"; (*b*) *root forms:* Mex, maceua, to dance (*Comp. Vocabulary*); Skr, mā, mine+sevā, service; Mex, peua, to be first, conquer; *pṝ-uo; Goth, fráuja, a lord; Lat, pri-mus; Mex, yopeua, to unloose, withdraw; Skr, yu, to separate+peua; matt-eua, prevision of a dying person, "second sight"(?); mati+eua; ma-topeua, to push; tud(?); τύπ-τω(?).

Remark.—The formation of these words is often difficult to determine with certainty. Thus xipeua, to shell peas, may be formed, xipe; Skr, çipí, a fibrous or thin root (covering?)+eua, to open, "get at"; or xi+pi, to pull up grass; Skr, bhid, *bheid, *pitua; or it may be a simple verb formed, xipe+*va* *uo, an adjective which later became a verb without change. *Pinaua*, Class V, is a parallel case.

VIII. *Verbs ending -uia.*—Verbs ending *-uia* (*huia*) constitute about one-tenth of the whole number. This class possesses a special interest from the fact that the formation is so clearly old Aryan. The ending *uia* is *u-i̯ó (Brugmann, *Vergleichende Grammatik*, IV, §772). These denominative verbs are very lucid in formation, as, iztatl, salt; iztauia, to salt; tetl, a stone; teuia, to stone. Two forms exist: (*a*) formed on the root; (*b*) formed on a stem.

Root forms: Mex, te-tzauia, to coagulate, harden; Skr, styā́yeti, to harden; *tetzauitl* was an epithet of Uitzilo-

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pochtli; also a dire prodigy. Mex, xe-xeluia, to cut to pieces, destroy; Skr, cṛnáti, to break; Mex, içauia, astonish, startle; Skr, çā, çícāti, to sharpen.

Stem forms: Mex, pachiuia, to spy; Skr. páçyati *spe̯k̂; Mex, paleuia, to aid; Skr, bála(?), power, pāláyati(?) to protect; Mex, panauia, to excel; Skr, bhāna, splendor; Greek, *φάινω*; tlapi-uia, to grow, multiply; Skr, tṛp, tṛpyati, nourish (cf. pivan, *πῖων*). Cf. reverencial forms, p. 18.

IX. *Verbs ending -iui.*—A small class. These verbs are practically adjectives, as ni-pachiui, I (am) full. The form *i̯u is closely associated with *i̯o (Brugmann, *op. cit.*, II, §105, nouns; IV, §702, verbs). The original meaning was "desiring," "possessing," "performing"; Skr, açva-yu-s, desiring horses; Mex, pachiui, to eat to satiety, "possessing fulness"; Mex, xeliui, to break, "being broken" (cf. xeloa, Class II, and xeluia, Class VIII); auiliui, to become vile, degrade self; Lat, vil-is(?). The ending *iui* appears to be analyzable i̯ui̯, but cf. affix *u;* Skr, tanv-ī, masc., tan-ū-s (Brugmann, *op. cit.*, II, §104). Here *y* would be euphonic glide + *u-i̯*, and this is parallel to Mexican ending *ui;* oquichtli, man; te-oquichui, a husband; iztli, a knife (obsidian), n'itz or n'itz*hui*, my knife.

X. *Verbs ending -oni* (-ni?).—This is a small class numbering only about 5 per cent of the whole number of verbs; examples: Mex, cueponi, to pop; potoni, to stink; Skr, pu-tis; Mex, moloni, activity (set in motion); Lat, molior; cognate, itz-moli-ni, to sprout (seeds); Mex, queloni, to dislocate; Greek, *κλητύς*(?), lock; clāvus + lo-ni; Skr, lu-ni-ṣ, a loosing; Goth, lu-n-s, "a means of loosing," ransom. From these comparisons it would seem that these verbs were originally nouns ending *-ni* and became verbs without change of form (cf. Brugmann, *op. cit.*, II, §§ 95, 96, and IV, § 597).

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XI. *Verbs ending -na (-ana?) *-no-*nā.*—A few verbs end in *na*. Examples: yacana, to lead (raj); mayana, to be hungry (famine); cf. Skr, māraṇa, killing, root mṛ; Greek, *μαράινω*; Lat, mori; Mex, ana, take; Skr, *aç-na(?); apana, to gird up, wrap *a-paç-na? These are not to be confused with root forms ending in *na*, as mana (mani), to place; tlapana, to break; Mex, tle-ua-uana, to stir the the fire; Skr, vána, wood. Compare yaca-na, to lead (raj), with Skr, bhara-na-m, act of bearing (cf. Brugmann, *op. cit.*, II, § 65, and IV, § 616).

XII. *Verbs ending -noa.*—A small class, less than ten verbs. Examples: Mex, cuiltonoa, to prosper, cuil + tonoa; *gṛr-; Skr, garús, important, Greek, *βαρύς*; Lat, gravis; Skr, dhá-na, riches; tepitonoa, to make small (by analogy); Mex, uecapanoa (-paniui), to exalt = ueca + panoa; Skr, panú, praise; Mex, chinoa, to burn, light up; Skr, dína, "light." As may be seen these forms are root + -na, -n, -nu (Brugmann, *op. cit.*, IV, §§597, 607; Whitney, *op. cit.*, § 717). Some of them are evidently nouns which became verbs by assuming the regular verb ending -a, as in dhána, or without change (cf. panoa, to cross a stream, prá + na *snā, p. 28). Cf. Class II.

XIII. *Verbs ending -ina, *-ino.*—A very small class. Mex, pochina, to card cotton; Skr, bhujáti, to bend, fold; cf. po(pro) + *qs-ṇ; Greek, *ξαίνω*, to card wool; Mex, malina, to twist; Skr, mṛṇáti, to "mill"; Mex, xancopina, to make bricks = xamitl + copina; Skr, kap-ála(?), potsherd, jar; cf. parallel adjectives and nouns; Skr, dakṣ-ina-s, dexter; Greek, *φήγ-ινο-ς*, beechen; Lat, faginus. This affix, very rare in Mexican, was *not fertile* in Indo-Iranian (cf. Brugmann, *op. cit.*, II, § 68).

XIV. *Verbs with irregular endings: -ni:* tolini (tolinia); tzilini, to ring; tlani, to "gain"; Skr, tiráti or

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trā́ti; *-mi:* tlami, to end; tṛ + mi; temi, to be full; tomi, to undo (toma); *-o*, temo, to descend; tleco, to mount, and a few others which appear to be variants from the regular types; chia, to wait, appears to be Skr dádhāmi, *dhē, to place; Greek, *τίθημι*; tlachia, to *see;* Skr, di--dhi-e, he looked; *to be circumspect;* Skr, dhā́yati, to reflect; chi-ua, make, beget, is *dhɔ; coua, to buy, kṝ.

C. CONJUGATION

Comparison of the conjugation of the Mexican verb with verb-flexion in Sanskrit, Greek, and Latin: (1) the s-future; (2) the s-aorist and the k-perfect; (3) the passive with -l- affix; r-forms, Latin and Sanskrit; (4) the "reverencial" affix *-lia;* Skr, *-ire?*

1. The future tense of the Mexican verb ends in *-z;* plural *-zque;* nitla-pia, I guard; nitlapiaz, I shall guard; nite-tlaçotla, I love; nite-tlaçotlaz, I shall love.

2. The perfect tense ends in *-x(sh)*, or *-ca(c)*: o-nitla--pix, I guarded; pluperfect, o-nitla-pixca; qua, to eat; o-nitla-qua, I ate; o-nitla-quac, or *nic-quazquia*, I had eaten; izcaya, to grow; o-izcayac, it grew. Some verbs have both forms: tlaneci, day breaks; o-tlanez (root-form) or o-tlanecic, day broke; *with ki as a variant*, o-tlanezqui. This k-perfect must not be confused with *root* perfects, as, nitla-paca, I it wash; o-nitla-pac; miqui, to die; o-mic, or mic, he died; chiua, to make, do; o-nic--chiuh, I did it.

The s-perfect may be compared with the Aryan s-aorist and the k-perfect with the Greek *κ*-perfect.

Remark.—The verb *ca* indicates existence; Span, estar, and is rarely predicative, *sum.* The perfect is o-ni-catca (ca-ti-ca). Hence the k-perfect may be perhaps interpreted as a compound with *ca* as the final member, but

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the variant *qui* and the plural *que* indicate a different origin. Compare the Greek perfect in *-κα*, as λύω, to loose; λέ-λυ-κα, I loosed. Tlatla-calhuia, to injure; Skr, çṛṇắti; has the perfect tlatlacalhui, the form of the Latin perfect in *uī*. This form results from the idiomatic change in Mexican, by which the perfect tense of many verbs drops the final vowel. The Mexican perfect in *k* appears to me to be identical with the Greek perfect in *κα*. It has been said in objection to my view that this is a late form. Here is Brugmann's view: "The explanation which has most in its favor is the following. *κ* is called a Root-Determinative, which came from the parent language into Greek in a few verbs" (Brugmann, *op. cit.*, IV, § 864, Rem.). The Mexican s-perfect (x), has the form and use of the s-aorists in Greek and Sanskrit, and the same may be said of the s-future.

The sk-form, pluperfect, o-nitla-pixca(pia) affixes to the root both the *s* and the *k* signs. The same is true of the form nic-quazquia. This is really reduplication of two past signs, the s-aorist and k-perfect. Compare with this sk-form the Greek iterative imperfect, μένω, to remain, μέν-ε-σκον; φύγω, to flee, φύγ-ε-σκον.

3. *The passive voice* ending *-lo*, *-o*. In the passive the forms are: ni-pia-lo, I am guarded; o-ni-pia-lo-c, I have been guarded; o-ni-pia-lo-ca, I had been guarded. Thus usage seems to indicate a passive older than the k-perfect, but this may be a later form by *analogy*.

The *impersonal* may be classed with the passive: ne-zahua-lo, they fast, all fast; teo-qua-lo, the god is eaten (being eaten). Irregular forms are common; analo, or ano, I am taken; maca, give, maco; ni-pixca, I gather corn; pixco, pixcoa, pixcalo, "they" gather corn; quiza, to go out; quixoa, all go out; yoli, to live; yoliua, all live.

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The reverencial also exhibits the same irregularities; ecuxoa, to sneeze; ecuxalhuia or excuxolhtia (class *oa* verbs). The impersonal of aci, to arrive, is: aciua, axiua, axoa, "they" arrive, "it is arrived"; poliui, to be lost, poliua; tleco, to mount, tlecoa or tlecoua. This last form may indicate a dropping of *r* *tlecola; and a passive -ola; hence poliua, *polil-a, might be compared with the reverencial ending *-ilia.*

Amidst this confusion of forms two facts appear to be established: that Mexican is analogous to the languages of the old world: (*a*) as to the presence of *r*-forms; (*b*) all these forms are *middle* or *passive.* Compare the irregular Sanskrit 3d plu, pres, indic, active, duh-úr, they milk.

The passive determinant *-l-* suggests comparison with the Latin passive. For analogy of thought-form cf. Latin *vivitur*, "they" live, people live.

4. *The "reverencial" ending -lia, -tia* (*i-lia, i-tia*).— This form of the verb derives its name from the fact that it is a "courtesy" form or "honorific," but it is regularly used with an *indirect object* as the "dative," so-called. (This form has the reverencial *-li*+*-lia.*) It is often distinctly *reflexive*, as nite-tlaçotla, I love (someone); reverencial, ninote-tlaçotilia or *-tiltia;* but mo-tlaçoti-lia, he loves himself. The reverencial also has the ending *-tia:* mati (ni), I think; machtia (nino), I learn; machtia (ni-te), I teach.[1] Verbs ending *oa* take *-huia, -lhuia.* But it is to be observed *that in all its forms and uses it requires the reflexive pronoun.*

These forms, *-tia* and *-lia*, have a special significance when compared with Sanskrit forms. It has been seen that *-l-* is the sign of the passive in Mexican and that it appears to be an ancient form. This *-l-*+the Sanskrit

[1] See Olmos, *Grammar Nahuatl*, pp. 20, 161 ff.; Palma, *Grammar*, pp. 69, 70.

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passive sign yá, may give the reverencial (middle) ending *-lia*, as above. The Sanskrit middle perfect has the ending *re* and *ire;* other bizarre Vedic r-forms exist. They are called "peculiar" (Whitney, *op. cit.*, 550*d;* for r-forms cf. Brugmann, *op. cit.*, IV, §§ 1076, 1083). The reverencial in -tia, the "compulsivo", (Palma), is to be sought in the proethnic imperative; cf. Skr, bhára-ta; Greek, φέρ-τε; Lat, fer-te, bear ye.

Remark 1.—These r-forms require further study and comparison before venturing to announce positive results. A few Mexican verbs have *both forms* in one vocable, as nitla-tilinia, to dilate, stretch; reverencial, ninotla-tilini--lia, ninotla-tilini-tia or ninotla-*tiliniltilia.*

Remark 2.—A few verbs take *ch* before the reverencial ending: iloti, to turn; ilochtia, to turn a person from his course; mati, to think; machtia, to teach. A sporadic *ch* affixed to the stem or substituted for its final consonant occurs in a few verbs in Sanskrit (Whitney, *op. cit.*, 608).

Remark 3.—Such a remarkable identity of bizarre, *specialized* forms in two languages so widely separated in time and locality as the Vedic of 1000 B.C. and the Mexican of 1900 A.D. can scarcely be explained as a "co-incidence." A rational reason is required instead of a puerile one, and the most obvious explanation is that of genetic relationship.

D. THE DESINENCES OF THE VERB

These affixes in a certain sense indicate the time and purpose of an action. They are: *to, tiuh, ti*, aller faire, about to do; *co, quiuh, qui*, venir de faire, just done. Their origin is naturally sought among the non-finite forms of the Aryan verb, the participles, gerunds, verbal nouns, etc. Olmos calls these forms "gerundives": o-nitla-piato,

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I went to guard; nitla-piatiuh, I am going to guard; ma tla-piati, let him guard.

a) *-to;* cf. *dhe-to-s, perf. part.; Skr, dhi-tá-s (hitas); Greek, θη-τό, "put," "done"; Lat, crēdi-tu-s (Brugmann, *op. cit.*, IV, § 1099; II, § 79).

b) *-tiuh;* cf. Lat, supine da-tū; OCSl, da-tu, to give, ground form teu̯. Also cf. *tio=t+io*; Skr, kṛ́-t-ya-s, faciendus (Brugmann, *op. cit.*, II, § 63).

c) *-ti;* cf. Lith, infinitive, dú-ti; OCSl, da-ti, to give (Brugmann, *op. cit.*, IV, § 1088 [6]; III, p. 161).

d) *-co;* o-nitla-piaco, I have come to guard (just come); nitla-piaquiuh, I am coming to guard; ma tla-piaqui, let him guard. Cf. affix *qo, qā (*k̂o *k̂ā?). In nouns and adjectives it meant "tantamount to, or resembling the original"; Skr, çus-ka, dry; ánuka-s, coming after a thing; dhā-ká-s, a receptacle; Greek, *θή-κη* (Brugmann, *op. cit.*, II, §§ 83, 85, 86).

e) *-quiuh*; perhaps -k̂, -q+*i̯u, *i̯o; "In Sanskrit, a living participial suffix; dṛ́ç-ya-s, dárç-iya-s, visible, worth seeing" (Brugmann, *op. cit.*, II, § 63); Greek, *ἄγ-ιο-ς*, venerandus (see *tio, supra*, under *tiuh;* also verbs in *-iui*, Class IX, *supra*, and abstract nouns in *-yo-tl*, p. 22, *infra*).

f) *-qui* may perhaps find a derivation in: qui, kṛ, to "make," "do," as used elsewhere in Mexican. Cf. ten-qui, filled, "made full"; co-yayau-qui, a thing widened; but it is more probable that *-k-* should be assigned to the perfect tense (p. 16, *supra*) with *-i* undetermined.

Remark.—An examination of these desinences reveals: (*a*) the first series has a *-t*-base; (*b*) the second series has a *-k*-base. (*c*) The *vowels* of the two series correspond and evidently have a *tense* value (imperative excepted) namely: *-o* for the past tense and *-iū* for the

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future. The *t*-form sometimes expresses a purpose, as nite-machti-tiuh, I go to teach. This parallels the use of the Latin supine in *-tu-m* after verbs of motion, as: legati venerunt res *repetitum*, deputies came to demand restitution. Cf. also the Latin perfect passive participle in *-tu-s*.

E. THE VERBAL NOUN ENDING IN -IZ-TLI

This in an active sense predicates "doing" as applied to the original verb. It is formed in two ways: (*a*) on the *root:* choca, to weep; choquiztli, weeping; (*b*) root *+l:* chiua, to do; chiua-l-iz-tli, a doing; (*c*) both forms: choquiztli, choquiliztli. Compare the primitive comparative suffix *i̯es, *is; superlative, -is-to. There is, however, no idea of comparison found in Mexican *-iz*-tli. Possibly es-ti, *ei, *is;* "weeping-is." The form *es*, ἐιμὶ, be, occurs in the reverencial timo-y-*etz*-ti-ca, "thou art."

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ABSTRACT NOUNS ENDING -YO-TL, -YU-TL.

A. *Variants.*—The forms -yo-tl, -yu-tl (-lutl), involve the relationship existing between Mexican *o* and *u*, which are often interchangeable. In a majority of the cases *o* represents a primitive *u*, as in teotl or teutl, a god *dḭu; moyotl or muyutl, mosquito; Greek, *μυῖα* **μυσ-ια*, a fly. Tlacatecolotl, devil, "man owl," has the variants: tlaca--tec-olutl, -ulutl; Skr, úlū-ka, owl; Greek, *ὄλολ-υξ*, wailer; Lat, ulula. Patiotl, price; patiyo, dear, is also patiuhtli, while patiyotl, bravery, has but one form; Skr, pati, to be master + io.

-lu-tl. Olmos gives -lu-tl as the equivalent of yu-tl (*op. cit.*, p. 39), but distinctly says (p. 198) that *ll* is not liquid but is sounded like *ll* in Latin *villa*. This suggests the affix **-lo*, -l̤lo; Skr, tū-lā, cotton boll; Greek, *τύ-λο-ς*.

Remark.—yuh, -iuh, -uh: yuh, so, as; Skr, yāú, pro., dual, masc., "that"; çal-*iuh*-yantli, a joint; Skr, sṛ + yu, to join + **en (*i̯en?); te*uh*-tli, dust; tetl, a stone; **tṛs + u; ue-*xiuh*-yotl, kin by marriage; Skr, sū, to generate, (*y* a glide, p. 27).

B. *Morphology.*—Nouns in -yotl are formed:

a) by affixing -yotl directly to the *root:* teo-yotl, divinity; pac-yotl, woof; Skr, páçyati, to bind; Lat, pac--iscor; chichi-yutl, pertaining to a dog ("sucker"); root **dhoi̯*[1]; qual-lotl (kal-ro-tl?), goodness; Greek, *το καλόν*.

b) From *themes:* pati-yotl, bravery; Skr, patí; pino--yotl, wretchedness; Greek, *πινύς*; maça-yotl, deer color.

[1] The "neutral vowel" *ɔ:* IE **pɔ-tṛ́*; Mex. *pi*-tli, "protector"; **stha*, stand; Mex, ue-*tzi*, fall; **mɔ-ti*, measure; Mex, ma-*i*-tl, the hand; mí-tl, arrow, post; Mex, con-ɔ-tl, child; Skr, jan-*i*-man, birth; Mex, t'an-*i*-ma, the soul; an-*i*-ma.

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c) *Grammatical forms:* (1) nouns as above; (2) *from adverbs* ending *-ca* (cauh),[1] as uecauh, far; uecauh-yotl, "farness," distance; chichica-yotl, bitterness; *two*-forms: coton-yotl or cotonca-yotl, clippings, from cotona, to cut; Skr, çātáyati; (3) from the *perfect tense of verbs;* tlatoca--yotl, a matter of authority, from tlatoa, to command; tlacuiloca-yotl, a matter of writing, cuiloa, to write (paint hieroglyphics); (4) with the same prefix *i̯o are formed adjectives in -yo: tetl, a stone; teyo, stony; iztatl, salt; iztayo, salty.

Remark.—These Mexican nouns in -yo-tl, are unmistakably formed by the proethnic affix, *i̯o, *i̯ā, *ii̯o, *ii̯ā (cf. Brugmann, *op. cit.*, II, § 63). They had at that early period an *abstract* meaning. Compare the following *concurrent* examples: Mex, xiuh-ca-yu-tl, a matter of a year; Skr, dáça-mās-iya, lasting ten months; Greek, ἐμ-μήν-ιο-ς, during one month; Mex, teo-yo-tl, divinity; Skr, div-yá-s, heavenly; Greek, δῖος *διϝ-ιο-ς, divine; Lat, jov-iu-s, belonging to Jove; Mex, qual-lo-tl, goodness; Skr, kal-ya, healthy; Skr, vā́c-iya-m or vā́c-ya-m, speech; Mex, tlaca--uaca, murmuring of the people; the corresponding abstract would be *tlacauaca-yo-tl. Cf. *i̯o verbs, Class IX.

[1] Aryan suffix ḳo, qo(?) (Brugmann, *op. cit.*, II, § 83, 129).

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APPENDIX

The Numerals

Mexican notation is partially based on the "hand counting" system, the most ancient and universal. The numerals 1, 2, 3, 4, are Aryan and the base of the system. I offer this analysis. There were *two* primitive Aryan roots for *one* and *two* roots for *two*. The roots for *one* were, sem, as in Latin, sem-el, once; Mex, ce, cen, cem; and *i, e, oi;* Skr, é-ka, one; Greek, *οἰνή*, ace; Latin, unus. The roots for *two* were dṷo; Latin, duo; and ṷei, ṷi, ṷim, ṷin; Skr, vin-çatí, twenty, "two tens"; Greek, *ἑἰ-κατι*; Latin, vī-ginti; Mex, *un*-xiuitl, two years. The root *i* or *e*, one, is found in Latin, tre-s, three; Old Irish, trī; analyzed tṛ + i or e. In Sanskrit tṛ means to cross, also to *increase*, hence *i* or *e* must have once meant *one* (cf. Thessalian 'ia, one) and tṛ + e = three, was read "increase one," that is upon *two*. The Mexican then is: *cem*, one; *ome*, two = uim + e, "two ones"; *e, ei, yei*, three, "increase one," tṛ being dropped; *naui*, four, becomes ná, "like" + *ui*, a pair, that is "like two twos"; *macuilli*, five, is a "hand"; *matlactli*, ten, two "hands."

An *ordinal one* occurs in Mexican outside the notation. The root, pṛ-mo, pṛ-uo, meant *first;* Latin, pri-mus; Gothic, fráuja, a lord; German, frau, a lady; Mexican, *pil*-li (pṛ), a nobleman; ciua-*pil*-li, a lady. From the strong form, pṝ, comes Mex, pehua, to be *first*, to conquer; Eng, *fore*-most.

Macuilli, five, a "hand grasp," is a compound of *maitl*, hand + *cui*, to grasp; Skr, grabh, grah; gṛbhnáti, he grasps.

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Matlactli, ten, the torso or both hands; maitl+Skr, tṛ+añc; hands crossed.

Caxtolli, fifteen, is cax + tol-li; Skr, toláyati, to weigh, balance (count?); *cax* is probably Skr, kásati, to move, or çaç (çaçvant), renewing; "renewing the base or unit?"

Cem-poalli, a score, is *cem*, as above + poa, to make evident; Skr, bhāti, to shine, appear, to make plain; Greek, *φή-μι*, speak; Lat, fā-ri; Eng, ba-n, marriage notice.

Tzontli, 400, the grand unit, a "head of hair," "many"; as *head*, Skr, sā́nu, peak, top.

Phonology of the Labials

Of the series only *p* remains.

The labials were difficult sounds for the Mexicans and were frequently lost or transformed, *p* seldom, *b* and *bh* oftener. The change was simply a dropping of the labial or a change p / b becomes u. The labials are usually preserved when protected by prefixes or affixes. But the changes are sometimes so puzzling that determination is very difficult.

1. *p*.—Tlauana, drunk=tla+Skr, pā́na, drinking; here *p* is lost despite the protecting *tla;* auh, also; Skr, apí; qui-auitl, rain=qui+auitl; Skr, ghṛ jígharti, to drip+áp, water (cf. yauitl; Skr, rajás, dark, clouds). *ph*—protected; tla-pana, to break, pop (egg-shells, dishes); Skr, drṇā́ti, cleave+phanati, leap, hops (compare with tlauana). *p, p-l*—tla-pal-li, color; Lith, pal-va, yellowish; OCSl, pla-vŭ, tawny.

2. *bh*.—*Initial* and *final*, accented(?), unprotected: ua-paua, to make strong, *ba-baua; Skr, bah, bahháyate, to be strong, *bag̑h bhag̑h; bahú, much; Greek, *πάχυς*, thick, strong; Ger, bug, the shoulder; eleuia, to desire, *eleubia, *leubh; Skr, lúbhyati; Greek, *λίπ-το-μαι*; Lat,

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lubet, libet; AS, leōf, love; tlal-olin, earthquake; ol-oloa, to roll; Skr, bhṛ́mati, rotate; or bhuráti, stir around; oui, dangerous, to be in danger; Skr, bhi, bháyate, to fear; coatl, serpent; Skr, çumbháte, to glide; comitl, dish, *colmitl (?); Skr, kumbhá; it may be assumed that Mexican never had the suffix *bhá in this case; uaualoa, to bark, *bhels; Skr, bháṣati; camatl, mouth; *ĝhombhos; Lith, žam-ba, mouth.

3. *bh—protected*, not dropped: tla-pal-tic, strong; Skr, bhárati; ich-*poch*-tli, a girl; Skr, bhájati, to deal out; bhaginī, sister, "fortunate one," *bhāg; cf. Pali, Vudho; Skr, Buddhá. *br*—tla-paloa, to salute; Skr, brū, to speak.

Remark.—Compare names of a few "flyers" with Skr, bhrámati, to move unsteadily (ol-oloa, roll); or bhuráti, stir around: tot-olin, a hen; pipi-olin (-yolin), a bee; çayulin, a fly; chapolin, a grasshopper.

Initial y

a) *y* represents a *primitive palatal or velar:* yollotl, heart, "meat" of fruit (hence not "roller," *Comp. Vocab.*); Skr, hṛ́da-ya, heart or essence of thing, *ghṛod, (l-l= l-iọ?); yan-yolcayotl, "blood" kindred, *ĝn̥, *gen, gigno; Skr, jan, jā́yate (cf. conetl, child); iyaya (redup), to smell; Skr, gṛhā, jígharti, to smell; yauh, to go, *gem; Skr, gam, gā; or yā; ihia, to hate; Skr, cáyeti *qeį; ihiotia, to be gorgeously dressed, "shine," *ĝhṛ; Skr, hári, yellow; Greek, χλω-ρό-ς; Lat, holus, gilbus, fulvus; AS, geolo; Eng, yellow; yeua, to beg; Skr, hā, jahati(?), to be destitute, *ĝhe; Greek, χῆ-ρο-ς: Lat, fames.

b) *y* represents *initial r:* yectli, good, right, *rēĝ; Skr, ṛj (rāj); Lat, rec-te, right; OHG, reht; Eng, right; ya--yac-tic, blackish; Skr, rajás, dark; Goth, riqis; Eng, rack (clouds); yopi-; Skr, lumpāti(?); yac-ana, to guide,

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rā́jati; yamania, to soften; Skr, ramaṇ́ya; ilhuia, to call, *gṛ; Skr, gír; Greek, γῆρυς; Eng, call.

c) *y*, *introductory glide:* yal-ua, yesterday; Greek, ὥρο-ς, year, season, hour; Goth, jera, year; Eng, year, yore; ye, already; Greek, *ἀιρεϊ, ἀιεί; Lat, aevum; Eng, aye, ever; yye, ye, yes; Greek, ἦ, surely; Goth, jā; Eng, ye-s; ioui, "flowing" (air); Lat, flo(?); Skr, vā́ti, to blow; Goth, vaí-vō, blow, *au̯, blow (umlaut, i̯-au-i̯); Lat, ve-nt-us, *u̯ē; ihiotl, breath; Lat, hĭo, to yawn; Greek, χάω; cf. (*a*) ihiotia; yancuic, new, *iuu̯n̥̂ko-s; Skr, yuvaçá-s; Lat, juvencus; Eng, young; ua-yolca-yotl, kin by blood; Skr, vṛjána, "dwellers"; yolqui, an animal; yolcatl, a grub, froth; yolca-tlaxcalli, bread of life, gen. meaning *life;* Skr, ūrj, sap, strength; cf. Lat, virgu-lum, bushes; qua-i̯uinti, to lose one's head; quaitl+i̯uinti; Skr, ūna, lacking; Greek, *'ê̂vvις.*

Remark.—As an introductory glide *y* is indeterminate: yollotl, yollotli, olotl, heart; spherical: ololtic, tapa-yoltic, tolontic; cylindrical: olotl, a corn cob; co-yol-omitl, an awl; Skr, āra, point; auiac, or auiyac, sweet smelling. It is impossible to differentiate yollotl, *ĝhṛ́od, heart, from olotl, round, *ur, "roller" or bhrámati, to rotate or bhuráti, to struggle; Mex, olinia, shake, move. (bh becomes o or u; see "labials," p. 25).

The Nasals

In modern Mexican there is a tendency to drop *n*, *m*, initial and final: Mexico, nearly Eshico; totolin, a hen, or totoli (Olmos, *op. cit.*, 197). Apparently there are no nasal verbs (see verbs ending *-i*, Class III, Rem. 1. For *m*=*v*(*u*) see verbs ending *-au-i*, Class IV, Rem. 2). Disappearance of the nasal causes no change in the root:

*anḡh, aqui, to squeeze in, enter; *ĝhen, quen-, wound;

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*bhn̥ĝh, ua-pau-a, to strengthen; *un̥n, iuian; Skr, vanáti, meekly; Lat, venus; *stembh, fasten; itztapalli, paving-stone (or sthā + bhṛ); *men, *mn̥-tó; mati, to think; chic--*ac*-tic, strong, *dherĝh + *n̥q.

Primitive vocalic *n̥=a:* -n̥-, not; Mex, a, amo (ano?); Greek, *ἀ, ἀν*; Skr, a, an; Lat, in; Ger, un; yancuic, new; *iun̥n-ĥo-s; *jm-, ma-yau-i (see above and verbs, Class IV, rem. 2).

n̥=e: *tn̥-tó, stretched, *ten; Mex, tentli, lips, border; nenqui, nothing; Greek, *νε- νᾱ*; Lat, ne; *dn̥ĥ, bite; Greek, *δάκνω*; Mex, tecí(?), to grind; ĝhn̥; Mex, quen, to wound (ken); Skr, han.

Remark.—As may be seen by these examples vocalic n̥ in Mexican exhibits the differences shown between Sanskrit and Greek n̥=*a* and Latin n̥=*e*.

-n̥t: Skr, -ātā; Greek, *-ᾱται, -ητε*; Mex, *-anat-: auatl, a door; Skr, átā; Lat, anta, doorpost.

-nt: Mex, cem-mana-uatl, the universe; sem, one, + manĕo, to abide, immanent + *u̯ent = uat; or Skr, ánta, "anticus," "limits"; Mex, ixtla-uatl, valley, vista, "spread"; *stṛ + u̯ent; Greek, *στρω-μα*; Lat, strāmen; Eng, straw; uentli, an offering; ĝhu + *en + tli; Greek, *χύ-τλο-ν*.

-ln-: Mex, ouatl, a green corn-stalk; auatl, oak; Lat, alnu-s(?), an alder, *alnos; auatl, a "wooly" caterpillar, *ulnā (au=u); Skr, ūrn̥ā, wool.

-ns-: Mex, maçatl, a deer; Skr, mā́n̥s, meat; Mex, metztli, moon, month, "leg," in comp. Greek, *μῆν*; Skr, mā́s; hence Mex, *men-s-tli, a derivative ending affixed to primitive *s*, which is wholly irregular in Mexican, which universally discards final *s;* for example, the final *z* in *ceuiz*, cool, derives from the verbal ceuiztli.

sn: Mex, panoa, to cross a stream, prá + *snā, bathe, a stream; Lat, no, swim.

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m following *st:* Mex, omitl, a bone, awl, *ost + mitl.
mr = *br:* Mex, tla-paloa, salute; Skr, brū, to speak.

Remarks Suggested by Criticism

Criticism is valuable only as it elucidates. The criticism which is insincere, superficial, or biased, has little or no value. The intelligent critic selects salient features and notes both merits and defects. He informs his readers.

1. *Compounding.*—It has been objected that my method of determining compound verbs gives results which are not Aryan. *Pachiuia* is cited. I give it (*Comparative Vocabulary*), "perhaps" *spac + hṛ. In the same connection is a cross-reference where the matter is discussed as one in doubt. The critic absolutely ignores the "perhaps" and the reference. Several have thus turned my tentative suggestions into positive assertions. A professor in a great New England university picked out enough such suggestions and doubtful points to constitute, with a few personalities, the chief part of his review, and was thus guilty of practical falsification. Such criticism may be compared with guerrilla warfare or "night-riding."[1] But to the point: Would pachi + hṛ (huia) be a legitimate Aryan compound? In Mexican the *objective* noun element, root or theme, is used in an adverbial sense: quen-chiua, to wound, *ghen + *dɔ; Skr, han *ghṇ-dhi, φα-τός; Mo-*teuhc*-çuma, Montezuma, "he frowns like a lord," mo + teuhctli + çuma, is a case of the noun (not objective) used adverbially. Compare Skr, niti-jña, etiquette knowing; açvamisti, horse desiring; Mex, yec-toca, to pretend to be good; Goth, þugkjan, pretend; OLat, tongere(?); Mex, quechpiloa, to hang (a man); *quechtli*,

[1] *The Nation*, February 25, 1910.

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neck, is not objective. Quech is the root, though distinctly a noun. Mexican *clips terminations* in compounding, as in tàtli, father, no-tà, my father, and moteuhcçuma above. Compare with quechpiloa, Skr, astam-ĕti, sunset, "home-goes." It is impossible in such cases to draw a strict line between objective-noun, noun-adverb, and adjective; compare potis-sum, possum. Beside these put Mex, cue-tlani, to get quiet *qi̯ē + tr̥; Lat, quies, quiet; Mex, xa-pot-la, to ruin (*Comparative Vocabulary*), from Skr, sa + pothyáti + ra or rā, "all-destruction-having," an original phrase coalesced into a verb. How does this differ from pūrvajanmakr̥ta, done in a previous existence? In geometry (a positive science) we learn that things which are equal to the same thing are equal to each other. If Mexican = Sanskrit and Sanskrit = Aryaṅ, then Mexican = Aryan. Q.E.D. (See *pachiuia*, under Verbs, Class VIII, *supra.*) Compare Vedic, vid-man-ē, get to know, with Aztlan-chan-e, a resident of Aztlan.

2. *The palatals and velars.*—Hasty critics have asserted that I have not differentiated these primitive sounds. A Frenchman[1] tries by this test (and others) to ridicule my work and perpetrates various *niaiseries* himself to prove me guilty of "enfantillages." This is another case of superficial reading. Had this critic examined my "Phonology" he would have seen that all the sounds of the two primitive series fall in Mexican into *two sounds*, a *c* (k) and an *sh* (x, ch) sound (cf. "initial y," *supra*). His ignorance of my phonology was rivaled only by an American critic[2] who after much expenditure of verbiage and sarcasm examined only *one entry* out of 620 in my vocabulary, and pretended not to understand that.

[1] A. Cuny, *Etudes Anciennes*, Avril-Juin, 1910, Bordeaux.

[2] Carl D. Buck, *Classical Philology*, April, 1910, Chicago.

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3. Syntax as a determining factor.—Some linguists hold the view that syntax is above etymology in determining genetic relationship. I beg to submit that there must have been words before there could be any *arrangement of words.* Admitting the *equal* value of syntax and etymology, let M. Cuny and others observe the significance of verb-structure as exhibited in the *perfect* and *future* tenses, the -sk-pluperfect, the *reverencial*, the *passive*, the *desinences*, and the *affixes*, which all unquestionably belong under *syntax.* Also is to be noted the very peculiar Mex. pronoun, *aca*, someone, with which compare Vedic asmā́ka, yuṣmā́ka, and the pronoun *tech-in*, we, with which compare the *-ιν* in Greek pronouns. In what other Aryan languages can this *-in* be found?

Can so extraordinary a coincidence as the appearance of *ch* in a few verbs (p. 19, rem. 2) in both Sanskrit and Mexican be, by any sort of probability, attributed to *chance?* Other cases, such as the omission of the *augment* (p. 7), might be cited.

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THE MEXICAN-ARYAN SIBILANTS

THE NOUN ENDINGS, PREFIXES, POSSESSIVE PRONOUN COMPOUNDS, ETC.

WITH AN APPENDIX ON
COMPARATIVE SYNTAX

BY

T. S. DENISON, A.M.

AUTHOR OF "MEXICAN IN ARYAN PHONOLOGY," "THE PRIMITIVE ARYANS OF AMERICA," "MEXICAN-ARYAN COMPARATIVE VOCABULARY," ETC.

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PREFATORY NOTE

Mr. Denison died soon after he had completed the MS for this monograph. He had made some additions and corrections; but he had not yet revised his work. In editing it, places were accordingly found where it was necessary to make some slight changes, or add a word or two, for the sake of clearness; but the utmost care was taken to preserve his exact meaning and, as far as possible, his exact phraseology. In one place, the MS read: "Mex., puch-tecatl, merchant the same, enjoy, by extension 'goods.'" Other passages and the preceding example showed plainly, that the meaning was: Mex., puch-tecatl, merchant; *bheu̯ĝ, to enjoy, (by extension) "goods." This emendation was therefore made. The semicolon after the word "merchant," which came at the end of a line, had been inadvertently omitted in writing, and the repetition of *bheu̯ĝ had been avoided. Its use was necessary, however. This example was one of the extreme cases; but it illustrates the changes made.

In the first part of the appendix, it was found that a mere outline had been made, and that this was only partially clear. It was accordingly compared with the original sources, and such additions were made as appeared to be imperative in carrying out his intentions. The task proved to be easier than it had looked; for the points were fairly clear, and it was possible to supply the needed material from the authorities referred to. He had apparently intended to do this, and it seemed best to proceed

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on that basis. If any slips have been made, they are mostly accidental; for no pains have been spared to get at his exact meaning and to follow it, using his own words without alteration as far as that could be done.

H. W. MAGOUN

CAMBRIDGE, MASS.
April 25, 1912

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I. S-Sounds in Mexican

A. COMBINATIONS

1. *Sl, ls, krs, trs.* In these combinations *r/l* is regularly dropped: Mex., a-uach-tli, dew; Skr., varṣá, rain; Gr., ἔρση, dew; Mex., Oço-matli, "The-divine-monkey," a station in the Aztec migration; Skr., vṛ́ṣan, virile; Mex., co-quitl, mud; Skr., sṛ, flow, +ci-tl, pile; Skr., cinóti; Mex., quech-tli, the neck; *kṛk̂; Lat., grac-ilis, slender; Mex., quechoa, to stir, grind; Skr., kṛṣ, kárṣati, to plough; Mex., cuich-ec-tic, blackish; Skr., kṛṣ-ṇá, black; *qṛṣ-ṇo; (ec=añc, *ac*, *ṇk).[1] *Exceptions.*—*s* dropped: Mex., ua-ualoa, to bark; *bhelso; Skr., bhaṣati; Mex., no-uil-tec-ca, no+vṛ+*stig, roof; Gr., *τέγω, στέγω*; Lat., tego, "Enclosed under a common roof" (of a gens?).

Remark.—Vocalic *ṛ, ḷ*, exhibit in Mexican the vowel variations of *all* the other Aryan languages. Vocalic *ṇ* shows a similar development.

1) ṛ=*i:* cipactli; Skr., sṛp; cuitla-pitz; Skr., pṛç.

2) ṛ=*il:* pilli; Skr., pṛ; no-uil-tecca; Skr., vṛ.

3) ṛ=*e*: eua; Skr., ṛ, íyarti; pe-ua; *pṛ-ua; cue-tlani; Gr., *κλάω*.

4) ṛ=*el:* tepulli; Skr., tṛd+pṛ; uelt-iuhtli; Skr., vṛdh; ueliti; Skr., vṛt.

5) ṛ=*u:* ca-putztic; Skr., pṛç; teputztli, *te-pu-tzi-li; Skr., tṛd+pṛṣṭhá; te-pon-az-tli; Skr., tṛd+puṭa, "perforated cavity," drum; *pḷta.

6) ṛ=*ul:* cal-pul-li; Skr., pṛ; te-pulli (above, 4).

7) ṛ=*a* (rare): ca-mil-ec-tic, brown, reddish (fruit);

[1] The infix, Skr., añc, *ac*, appears in Mexican as *ac, ec, ax* (ak̂); al-*ac*-tic' al-*ax*-tic, slippery; also alauac (Skr., vañc, cf. vaṅçá).

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Gr., χρῶ-μα + μίλ-το-ς; "color," "vermillion"; ca-putztic (above, 5).

8) ṛ=*al:* ca-ualli; Skr., sṛ + vṛ; na-ualli; Skr., nṛ + vṛ; tla-pal-tic; Skr., bhṛ; tlaca; Skr., dṛç.

2. *S with Palatal or Velar* (*sq, *sĝ): Mex., amoxtli, book, from a species of papyrus found in Mexican lakes; *mozĝ; Skr., májjati, to submerge; Mex., tema-zcalli, vapor bath; *sqḷ; Gr., σκάλλω; Lith., skilù, *skiliu, to light a fire (in a bath?); Mex., te-zcatl, mirror; Skr., chā-ya, shadow; Gr., σκιά; Mex., teo-pixqui, priest, "asking a god"; *pṛ̂k-sk̂; Skr., pṛcchá-ti, to ask; Gr., θεο-πρόπ-ος, "asking a god," prophetic; Mex., ui-uixca, to tremble (with weakness or fear); *wiĝ-sk̂; Skr., vijá-ti, to start in surprise; AS., wīc-an; Eng., weak; Mex., cuitlapitz, big-bellied; pitz; Skr., pṛc, to satiate.

Variants.—*Tzk* for *sk:* Mex., patzcoa, to drop behind; Skr., paççā, behind; Mex., pe-petzca, shining; pi + Skr., çcand, shining.

S dropped: Mex., ma-lac-a-tl, a spindle; ma, hand, + razĝ, rope, yarn; Lith., rezgù, to knit; Lat., restis, *resc-ti-s, rope.

3. *Ks-* (Skr., kṣ) becomes *ch* or *x:* Mex., chantli, house; Skr., kṣéma; Mex., xotl, foot; Skr., kṣud, to stamp; Mex., xotl, a sprout, shoot; ue-xotl, willow, big-shoot; *qiẹu̯; Skr., cyáva-ti, set going; Avestan, çavaitē; Gr., σεύω?

4. *St;* (*a*) with *prosthetic* or *interconsonantal i*, (*b*) *s* dropped or *t* dropped, (*c*) *variants: x, ch, tz, tzt, z.*

a) Mex., itzta-palli, a paving stone; *sthə + bhṛ; Mex., ixtlauatl, plain, prairie: *stṛ, "spread out"; Skr., stṛ, to strew; Gr., στόρνυμι; Lat., strā-tu-m; AS., *streáw; Eng., straw; (*strau-*at*-l, affix, or stra-*vat*-l); Mex., iztlac-tli, saliva; Gr., στράγξ; Mex., ytztic, cold; Gr.,

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στίβη, hoar frost; Lith., stìnkstu; *stiĝ; Mex., citlalin, a star; *stṛ, as above; Lat., stella, *ster-la (see sṛp, § 5).

b) *S* dropped: Mex., tena, to groan; Skr., stanati; Gr., *στένω*. *T* dropped: Mex., te-tzaua, to coagulate; Skr., styā-yate.

c) Mex., te-putzt-li, back, shoulders; Skr., pṛṣṭhá, ridge; (for *ṛ* see *Remark*, § 1); Ger., firste, ridge pole; Mex., ue-tzi, to rush, "fall on"; vi+*sthə, to stand; Mex., que-tza, to stop, stand; *kṇt; O. Irish, cēt; Gr., *κατά* + *σθη* (strong grade of ə); Mex., ichte-qui, or ychte-qui, to steal; Skr., ste-ná(?)+kṛ or grah (cf. *Comp. Vocab.*, p. 43); Mex., que-tzuma, to bite; Gr., *κέστρα* (§ 22 d, *Remark 3*, 2) + *στόμα*, mouth.

Remark.—Ozto-mecatl, merchant, oztoa, to be shrewd, "foxy"; but if the meaning is, "strange-people," *ghosti-s; Lat., hostis, either host or guest (for loss of palatal see *Morphology*, p. 12); and if the meaning is, "shop-people," bazar; Lat., ōs, mouth; opening of shop(?); Mex., oz-totl, a cave (cf. *Primitive Aryans of America*, p. 164, n. 1); quai-ztalli, gray haired, quaitl, head+jṛ, to grow old(?).

5. *Sp* (*s-p*): Mex., a-cuet-zpal-in, water lizard; cuet; Gr., *κατά* (as in quetza, § 4)+sphṛ; Skr., sphuráti, to dart; Mex., atla-pal-li, wing; Skr., sphṛ; Lith., spaĩ-na-s, wing; Skr., par-ṇá-m, wing; Mex., cipactli, shark (calendar), marine monster; *srep, *sṛp, to glide; Skr., sárpati; Lat., rep-tilis; (ac, *nk̂, añc, "like").

6. *Su-* becomes *s-*: Mex., tzo-pelic, sweet, *tzot-pel-ic; Skr., svādús; Gr., *ἡδύς*; Mex., tzo-tzon-a, to beat a drum (*nino*), fig., to sound; Skr., svanati; Mex., tzilini, to ring, buzz; Skr., svárati, to sound; Gr., *σῦριγξ*, a pipe; Mex., tzo-mia, to blow the nose, sound (it); Mex., cepoa, to be numb with cold, have the hand "asleep"; Skr., svápati.

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Exception.—Mex., vez-ua-tli, *sụesṛ, sister; Ger., schwester; Eng., sister.

7. *Sn(?)*: Mex., pa-noa, to cross a stream; pra+snā; Lat., nō, swim.

8. *Ns:* Mex., maçatl, a deer, "venison"; Skr., mā́ṅsa, meat; OCSl., męso. (For *-nst-*, see Division III. § 22 *d*, *Remark 3*, 2.)

9. *Ps:* Mex., pau-aci, to cook: Skr., ps-ā-, "food."

10. *Str:* Mex., citlal-in, star; Skr., tārā́, *stārā́, stars; Lat., stella; Mex., ixtlauatl, campus (see § 4 *a*).

B. SIMPLE SOUNDS

11. *X.* The devolution of Mexican *x*, as illustrated in fifty words, shows (*a*) two-thirds of the cases (*circa*) primitive *s*, (*b*) one-fifth palatal, $\hat{k}$, $\hat{g}$, and (*c*) combinations of its component letters, as *sk*, *ks* (see *supra*, 2 and 3).

a) Mex., xu-chitl, flower; Skr., su+*dhə, well put ("made"); Mex., xu-matli, a ladle; Skr., su, "juice,"+ma-tli; mā, to measure (cf. *soma*+tl); Mex., xalli, sand; Skr., sṛ, sarā́, moving; Mex., ixu-iuhtli, grandson (see § 15 *c*, 2); Skr., sū́te, to generate, sū-nú, son; Eng., son; Mex., ecuxoa, to sneeze; Skr., çvasiti; AS., hweós, wheeze; Mex., xiotl, a shuttle; Skr., súvate, to impel; Gr., σεύω; Mex., xol-huaztli, a broom; Skr., sūrí, impeller,+vas, "furniture"; Mex., quex-quich (quez-qui), how much? *qa, *qi; Skr., ka-s, ki-m; Lat., quis; Mex., ixtlauatl, plain, campus; *stṛ (§ 4); Mex., izua, grow, bud (iz-, itz-); Skr., iṣ, force, strength; Gr., ἱερός, *i-ρό-ς*, *ἰσ-ρό-ς*, lively, fresh; Mex., caxaua, to get flaccid; Skr., kaṣati, to hurt.

b) *X* (*palatal origin*): Mex., mix-tli, cloud; *meiĝh; Skr., meghá, cloud; Mex., nextli, ashes; Skr., náçyati, to

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perish; Mex., palaxtli, a wound; *plaĝ; Gr., πληγή, a wound, blow; Lat., plāga; Mex., ui-uixca, to tremble; *u̯iĝ-sk̂; Skr., vijáti; Mex., xaua, to paint the face (Indian style); Skr., çaraṇá, covering; Lat., col-or; Mex., xeloa, to divide, break; Skr., çṛṇáti; Mex., xoc-otl, fruit; Skr., çúci(?), summer.

Variants.—(*X* for *ch*): Mex., xitmi, to cut (xini); Skr., chinnáti (chid); Mex., xotl, a sprout, shoot; *qi̯eu̯; Skr., cyávate, he moves himself; Gr., σεύω; cf. Eng., shoot, shuttle (see xiotl, *a*, *supra*). Here we should expect *kutl.

12. *Ch* springs from three sources about equally divided as to recurrence: (*a*) *palatal* or *velar*, (*b*) *dental*, (*c*) *primitive s*.

a) Mex., pachoa, to bend; *bheu̯ĝ; Skr., bhujáti; AS., būg-an, bend; Eng., el-bow; Mex., puch-tecatl, merchant; *bheu̯ĝ, to enjoy, (by extension) "goods"; Mex., te-ach-cauh (qa+uk), elder brother, leader; Skr., ájati; Gr., ἄγω; Lat., ago; (tiacauh, valiant, is related to Skr., tyajati, to risk); Mex., ich-poch-tli, girl; *bhāĝ; Skr., bhag-inī, sister, "fortunate one," "happy"; Mex., yaca-pich-tlan, "place of adorning noses"; *pich*, *piḱ; Skr, piṅçáti; Lat., pic-tor, a painter; Mex., quechtli, neck; ma-quechtli, wrist, "slender"; *kṛk̂; Skr., kṛ́çyati; O. Lat., crac-entes; Mex., choca, to weep; Skr., çócati; perhaps Mex., pi-och-tli, arm pit, hair place; pi, hair; Lat., pi-lu-s+*uk; Skr., úcyati, to be accustomed; ókas, home (cf. *uh*, § 20).

b) *Dental:* Mex., achi, a little (more or less); Skr., adhi, over, besides; Mex., chi-chi, dog, "sucker"; *dhə, "suck" or milk; Skr., dhe-nú, a milch cow; Gr., θη-λή, breast; Mex., chinoa, to light up; Skr., dī, dīdyati, to shine; Mex., chi-ua, to make, do; *dhə+ua; Skr., dá-

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dhā-ti; Gr., *τί-θη-μι*; Mex., chimalli; *dhə+mṛ; Mex., xu-chitl, a flower, "well-made"; su+*dhə.

c) *Ch=s:* Mex., ich-pochtli, a girl; ich-, *aiṣ, "desirable"; Skr., iṣ icchá ti; Mex., cuich-ec-tic; Skr., kṛṣṇá, black; (*ec*, *ac*, §1); Mex., oquich-tli, a male; *uks; Skr., ukṣáti, emicat; ukṣán, bull; Goth., aúhsa; Mex., michin, fish; Skr., miṣáti, to open the eyes, "stare"; Mex., ychtequi, i-chte-qui, to steal; Skr., ste-ná, a thief; *ste-+kṛ. or grah (see *Comp. Vocab.*, p. 43); Mex., cuechoa, to stir, rub; Skr., kárṣati, to plough; (for loss of *l*, see §1); Mex., a-uach-tli, dew; Skr., vṛṣ, várṣati, to rain.

Remark.—From the heterogeneous character of the *s*, *sh* sounds, they have little real value for purposes of differentiation; *ch* palatal or velar seems, however, to be medial, while *ch* initial is apparently always *dh+i*, which throws doubt upon choloa, to run; Skr., turáti; cf. Hindu, nautch (girl), from nṛt, to dance. But *ch* (=*tsh*) stands to *t* as *tz*, explosive, stands to *s*. In tzo-pinia, to peck, sting, or cho-pinia (su+bhid), we have both forms. Cf. Mex., chan-tli, house, with Skr., kṣi, to dwell; Gr., *κτί-σι-ς*, a settling, foundation.

13. *Tz* (*tzt*) represents primitive *s*, pure or in combination. Since *tl* is the only consonant combination which may begin a word in Mexican, *sk*, *st*, *sp*, etc., must be reinforced by "irrational" vowels (see combinations, *supra*) or else one of the consonants must be dropped. The commonest vowel for this purpose is *i prosthetic*, rarely *e* or *a*, and *a* or *e interconsonans*.

Mex., itzcuintli, ytzcuintli, dog; *skun; Skr., çván; Gr., *κύων*; Lat., canis; Ger., hund; Mex., itzta-pal-li, a paving stone; *sthə, to stand, +bhṛ, to bear; Mex., itztic, cold; *stig̑; Gr., *στίβη*, hoar frost; Lith., stìnkstu, to congeal; Mex., patz-miqui, to "kill," cause distress; Skr,.

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bhas, bábhasti, to crush; Mex., pitz-a-uac, (1) small, delicate, cord, beans; *peiṣ; Skr., pináṣṭi, to grind; Lat., pinso; (2) large, robust; pi, "fat"; Gr., *πίων*+Skr., vaṅçá, "kind"; (3) long (road); pi (hair-like?), drawn out; Mex., piaztic, slender, pi+az (*ac*, *añc*); cf. Skr., prásiti; Mex., te-putzt-li; Skr., pṛṣṭhá, back, ridge, *pṛ +*sthə; Mex., tlani-tztia, to lower one's self; *sthə; Mex., tzilini, to ring, hum; Skr., svárati; Mex., tzo-mia, to blow the nose, sound (it); tzo-mia, to sew; Skr., syū; Lat., suo; Eng., sew; (for *mia=nia* see *Morphology*, p. 10); cf. the parallel form, *cio*-toma, to unravel; Mex., tzo-pelic, sweet; Skr., svādús; Gr., *ἡδύς*; (*pel=pṛ*); Mex., ue-tzi, to fall; vi+*sthə; Mex., pi-tzo-tl, hog; pi, fat, *supra;* -tzo; *su-; Lat., sū-s; Gr., *ὗ-ς*; AS., sū; Eng., sow; (pitz-otl would mean "smallness").

Variants.—*Tz* is rarely derived from *dh-;* Mex., tzica-uaztli, a comb, "holder"; chica-uac, strong; tzic-a-tl, ant, "strong one"; all from *dherĝh; Skr., dṛ́ṁhati, to make firm; Lat., fortis; *forc-ti-s.

Tz from *k:* Mex., ca-putz-tli, black; *pṛ̂k; Skr., pṛ́ç-ni; Gr., *περκ-νό-ς*; (for ca-, see §1, *Remark*, 7); Mex., tzontli, hair, four hundred (*numeration*); Skr., cū́ḍa, tonsure of a child (in a religious rite); also, knob, top; (*Comp. Vocab.*, sā́nu, top, p. 86). *N* is irregular in tzontli, if it is equivalent to cū́ḍa.

14. *S* (*ç, z, ce-, ci-*). Molina (*Vocabulario*, 1571 A.D.) employs the antequated *ç* for *s* before *a, o*, and *u;* Chimalpopoca (*Metodo*, 1869), Palma (Grammar, 1886), and others use *s* for *ç* (*z* medial), and a MS of 1607 has *s* only. In fact, there is no standard of uniformity. The sound is *s* initial, *z* medial. In origin, *s* is, (*a*) *primitive*, in three-fourths of the cases (*circa*), and (*b*) *palatal* or *velar*, in one-fourth.

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a) Mex., eçotl, blood; Skr., su, sunóti, to press out; Mex., eztli, blood; Skr., ásyati, to throw, as-án, blood; Mex., ce, ceme, one; *sem; Lat., sem-el, once; Mex., iciui, to hasten; Skr., suváti; Mex., maçatl, deer, "venison"; Skr., māṁsá, meat; Mex., ça-ual-li, a cobweb; Skr., sa, "united," + vṛt, to enclose; Mex., quiça (quiza), to go out, quit; Skr. çiṣ, çinásti, to leave, set apart; Mex., poçaua, to boil; Gr., ἕψω (?).

b) Mex., tozti, tozte, the nails; tozquitl, the mouth of one who sings, hence, apparently, "a showing of teeth"; *tozq + ti; *dn̂k + sk̂; Skr., dáçati, to bite; Gr., δάκνω, to bite; AS., tusc, tooth; Mex., to-totza, to accelerate, wind a clock, the idea being that of "movement"; perhaps a by-form of *vaĝh; Gr., ὄχ-ο-ς, *ϝόχος, a wagon (cf. Mex., uica, vica, to carry); possibly *tot;* Skr., tud, "thrust forward"; Mex., cuz-tic, yellow; Skr., kāç-ati, to shine; Mex., içauia, to waken suddenly; içа-uaca (Lat., vox), to be hoarse; Skr., çiçāti, to sharpen; Lat., cō-tes, whetstone; Eng., hone; Mex., ticitl, doctor, "wise old woman"; Skr., diçáti, to show; Gr., δείκνυμι; Lat., dīco, to tell; Mex., tla-çot-la, to love; tṛ + Skr., çudh-ya-ti, to be pure (?);[1] Mex., tzo-tzo-paz-tli, a sword (to drive the woof home in weaving); Skr., su, impel, + paç, pāçayati, to fasten; *pak̂.

Remark.—Mex., oça, uça, to paint the face; *ue-sk̂, *uns-sk̂; Skr., uñchati, to wipe. Here the development of *s* is uncertain; but Mexican seems not to take *-sk̂*.

II. Noun Affixes

15. (*a*) *Comparative frequency* of *-tl* and *-tli*. As shown by one hundred and thirty-five nouns, *-tl* stands to *-tli* as five to four. Including the fertile class of nouns

[1] Verbs like tlaçotla, xotla, to dry up, xapotla, to destroy, etc., are abnormal in form. I affixed -ra, -rā, "having" to these roots (see *Comp. Vocab.*, pp. 78, 91). In reality, they may be instrumentals that have become verbs (§24).

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ending in *-yo-tl* (*Morphology*, pp. 22 f.), the ratio is two to one.

b) *Sequence* of *-tli*. (1) In about 37 per cent of the cases, *-tli* follows *s* (or *sh*) sounds; (2) in 27 per cent of the cases, it follows *n;* (3) in 13 per cent, it follows *c* (*k*); (4) in 16 per cent, it follows a long vowel, *a*, *o*, *u*. It is rarely attached to an *i* (*e*) stem.

1) Mex., a-uach-tli, dew; Skr., várṣati, it rains (see § 12 *c*); Mex., eca-uaz-tli, a ladder; Skr., váste, to put on; Lat., ves-ti-s, a garment; Mex., ix-tli, the face; Skr., īkṣati, to look at; Mex., palax-tli, a wound; Gr., πληγή; Lat., plāga; *plaĝ; Mex., nac-az-tli, the ear; Skr., nag-ná, naked, ("flesh"); Goth., naqaþs, naked; (*az*=aç or añc); Mex., chi-ual-iz-tli, a doing; *is-to.

2) Following *n* (*m*): Mex., chan-tli, house (see § 3); Mex., mon-tli, son-in-law; Skr., māna, "honored one"; Mex., ten-tli, lips, mouth, border; *tn̥; Skr., tanóti, to extend; Gr., *ταν-ύ-ω*, *τάν-υ-μαι*, to stretch, extend; Lat., tendo; Ger., dehnen; Mex., can-tli, the cheeks; Skr., hán-u-s; Gr., *γέν-υ-ς*; Lat., gen-a; Ger., kinn; AS., cin; Eng., chin.

3) Following *c* (*k*): Mex., cip-ac-tli, shark, marine monster (calendar); *sr̥p+n̥q, ac, "like," "serpent-like"; cf. *cepa*-yauitl, snow; Skr., sr̥p, creep; Mex., poc-tli, smoke; Gr., *πυκάζω*, to cover up, enwrap; Mex., te-uhc-tli, leader, Mo-teuhc-çuma, Montezuma; te+*aug, "make great"; Skr., ójas, might; Lat., Aug-ustus; (*te*, § 22 *b*).

4) Following a vowel: Mex., pa-tli, a potion; Skr., a-pā-t, he drank; Lat., pō-tu-s; perhaps, no-ueue-*po*, my neighbor, "a man I drink with"; Mex., quauh-tli, eagle; Skr., khá, sky,+uc, "accustomed to," "sky-bird."

c) The use of *-tli* in *kinship names*. Some typical kinship words end in -tr̥ in Sanskrit: pitr̥, father; mātr̥,

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mother; bhrátṛ, brother; duhitṛ́, daughter. Only two in the list accord with the rules governing -tṛ (see Whitney, *Sanskrit Grammar*, § 1182 *f*).

1) *General Names of Kindred:* father, *tatli;* mother, *nantli;* children (in general), *pilhuan;* pṛ, to fill; son (when the father speaks), *pilli*, (when the mother speaks), *conetl*, "begotten one"; Skr., jánas, race; Gr., γένος; nephews and nieces, *pilhuan* (pṛ), also *te-ixui-uan* (Skr., sū-nú), "sons," "begotten ones"; elder brother, *te-ach-cauh;* Skr., ájati, to lead, or ágra-ja, elder brother; also *ti-yaca-pan*, both meaning "leader"; elder daughter, *ueltiuhtli;* third, fourth, or fifth daughter, *tlaco teicu* (see *Remark 2, infra*); youngest child, *xocotl*, "tender," "sprout"; second child, son or daughter, *tlacoyeua, tlamamalli;* a youth is tel-poch-tli; a maiden, ich-poch-tli (*Comp. Vocab.*, pp. 42 f., 73 f.), said by males and females; women alone say, conetl te-coneuh; stepfather, *tlacpa-tatli* (icpa); stepmother, *chaua-nantli;* an "affliction." (For table of kindred, see Palma, *Gramatica de la Lengua Azteca o Mejicana*, p. 119.) Personal pronouns go with all of these (see § 26). I have inserted them only where the word would not stand alone.[1]

2) *Derivations* and *Special Meanings.* Skr., pitṛ́, father, has been assumed to mean "protector"; Mex. has pi-tli, *pə+tṛ, eldest sister (said by a younger sister); also, lady; and a servant accompanying a lady (Sp. criada, usually, "wet nurse"). Here is distinctly the idea of "protection" in all three cases; Mex., ta-tli, father, is parallel; Skr., dātṛ́, "giver"; Mex., tex-tli, (with "saltillo") tehex-tli (Palma, *l. c.*), is brother-in-law; "cuñado de

[1] Morgan (*Ancient Society*, pp. 419 ff.) gives the Hawaiian nomenclature, which is similar to this, and the classification appears to indicate simply precedence in birth; but in Sanskrit and Mexican *ag-* indicates a "leader," "superior." Cf. also Morgan, *l. c.*, pp. 404, 412, 438 ff., and 447 ff.

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varón," one who marries a man's sister. Here ex-tli (ez-tli) evidently means "blood," as shown in te-eç-o, son of a noble (cf. Fr., sang pur). The first member of the compound may be taken as *dai in Skr., devṝ, husband's brother (transfer); Gr., δαήρ, which is also brother-in-law and best man at a wedding; Mex., vez-ua-tli is sister-in-law; no-vez-ui, my sister-in-law (a woman speaks); *suesṛ, sister; Mex., tla-tli, uncle; Skr., trātṝ, "protector"; Mex., nan-tli, mother; Skr., nanā, mother (colloquial); cf. nánāndṛ, aunt; Mex., ixu-iuh-tli, grandson; Skr., sū-nú, son; AS., sunu; OCSl., synu; Eng., son; Mex., mon-tli, son-in-law; Skr., māna-da, "honored," said by a woman of her husband or lover; Mex., mach-tli, nephew; Skr., mádh-ya, middle; madh-ya-ma-jāta, "middle born," a son; Mex., ci-tli, grandmother; (a root cis is indicated by te-ciz-tli, some one's mother"); Skr., çiṣ, to set apart (cf. xiço, § 23); Mex., pipton-tli (pep), grandmother; (redup.) *pi-pitṛ-nt-li; (for ṛ=u or o, cf. teputztli and caputztli, §§ 1, 4, 13; and see *Morphol.*, p. 22 or *Remark*, § 21 below).

3) *Tribal or Gentile Names:* co-*col*-li, grandfather, ancestor; Skr., kúla, clan; ve-pul-li, sister-in-law, "far off kin," one of the cal-pul-li, gens (?); Skr., púr, city; Gr., πόλις.

4) *Attributives foreign to general Aryan use:* Mex., ic-uh, younger sister (an elder brother speaks), younger brother or sister (an elder sister speaks), apparently, "the free one," "lower (?) one"; ic=ric; Skr., ric, riṇákti; Lat., linquit, leave, go away, go free, or leave behind; Ger., leihen; Eng., len-d; (ic-uia, to tie with cords, is Skr., likháti, to line); (also cf. cūḍā, relating to the tonsure); for "elder sister" see also ueltiuhtli, and for "elder brother" see achcauhtli (§ 20).

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Remark 1.—These kinship names are all distinctly Aryan, and yet no two of them coincide in both *form* and *meaning* with the corresponding names in the classic languages. But their significance is even more marked than that of those found in the latter languages, because nearly all the Mexican names retain clearly their "attributive" character. And ta-tli, dātṛ̀, "giver," is just as close and significant an attribute as pitṛ̀, "protector." With the numerals (*Morphol.*, p. 24) they clearly show the very ancient character of the Mexican nomenclature.

Remark 2.—It may be seen from the above that *younger* brothers and sisters are classified; thus, *elder brother*, te-*ach*-cauh, *younger brother*, te-*ic*-cauh; but younger brother is n'*ic*-u-, when an elder sister speaks, and n'*ic*-u- is also *younger sister*, when an elder brother or sister is the speaker. Again, *icu*-tontli is *second cousin*, male or female, and *ic*-ni-tl is *brother* in general (Palma, *l. c.*). Molina gives ic-ni-uhtli as "friend" (same roots). A *paternal* uncle is tlatli; a great uncle, calli; a great great uncle, mintontli; a paternal aunt, auitl; a great aunt, citli, a great great aunt, piptontli; etc. The ramifications and nomenclature of *consanguinity* and *affinity* in full, as employed by the Nahua, would require much more space than I have at my disposal here. Enough has been given to make the system clear and place it in the Aryan scheme. Some of the designations seem arbitrary, and perhaps no cause can be discovered for their existence; *e.g.*, why is *tlacote ycu* applied to the *third* son, but to the *third*, *fourth*, and *fifth* daughter? Such is Molina's plain statement. As may be seen, this classification indicates a state of society preceding the Aryan (but not excluding it). See Morgan, *Ancient Society*, pp. 394, 413 f., 442, 467, 480 ff. Ic-ni-tl, ic-niuhtli, ic-uh,

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are forms cognate with Gr., *ἱκ-νέο-μαι*, *ἱκ-έ-της*, a suppliant, to entreat, (in the ppl.) fit, worthy, etc. Brugmann (*op. cit.*, IV. p. 138) seems to refer *ik-* to the same root as Lat., hos-tis, *ghos-tis. The affix is *neu̯o, which becomes an infix.

16. (*a*) *The suffix -tl* has extended greatly in Mexican. It has taken the entire fertile class of abstracts ending in *-yo-tl* (*Morphology*, pp. 22 f.). Compare: Mex., aca-tl, a reed, rush; Gr., *ἀκή*, point; *ἄκρος*, **ἄκ-ιο-ς*, pointed; Mex., ci-aca-tl, arm pit, "hair place"; **si*; Gr., *ἱ-μά-ς*, **σιμάς*, string, + (1) aca, as above, or else (2) Skr., áṅga, a member, part of the body; Mex., mic-que-tl, a corpse; Skr., ci, to pile (allusion to funeral pile); but cf. **qi̯es*, quiet, "death-rest"; Mex., yac-atl, the nose, yac-ana, to guide, hence, "leader" (also yac-a-tia, to point), may be either (1) "aca," point, as above, or (2) **reg*, to rule; Lat., reg-ō; Mex., coatl, a snake; Skr., çubh, the "glider"; Mex., ce-tl, frost; Skr., çī-tá, cold; Mex., tec-olo-tl, owl; Skr., úlū-ka; Gr., *ὄλολ-υς*, "howler"; Mex., toma-tl, tomato, either, (1) "the cut one," "parted," Gr., *τόμος*, a piece cut off, or (2) "the fat one," plump, from *tu, to swell, + ma (affix not certain).

b) *The nomen agentis* value of *-tr̥*, *-ter*, has sometimes disappeared in Mexican, as may be seen by the above examples, or it is at least *otiose*. It distinctly remains in names of *trades* and *tribes:* words ending in -teca-tl; Skr., tákṣati; Gr., *τέκτ-ων*, carpenter; Mex., puch-teca-tl, a merchant; Skr., bhuj, profit; Tol-teca-tl, a Toltec, an artisan; Az-teca-tl, an Aztec; azta-tl, a heron, "wader" (?), if so, atl, water, + *sthə, to stand.

Remark 1.—Other specific *nomina agentis* endings are: *-ni*, *-ti* ("compulsivo"), and participial forms ending in *-lli*, *-tli*, *-qui*. The *nomen instrumenti* ends in *-oni*, as

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tla-tec-oni, a knife. These affixes involve internal construction in a few cases which is not within the scope of this work. Some remarkable compounds may be built up, as tla-*xin*-qui, a carpenter; *skid, to split; quauh + te + ma + lac-a + xin-qui, a wagon-maker.

Remark 2.—Differentiation of -tl, -tli, -tṛ (t-r), tṛ-, and tl-. As may be seen by what has gone before, the Mexican forms are not morphologically identical with the primitive *-er*, *-ter*, *-tor*, which are found side by side without difference in meaning (Brugmann, *op. cit.*, II. §119). The primitive kinship names had an ending *-ter*, and from these were formed feminines in *-trī:* Skr., jáni-trī; Lat., gene-trī-x, a woman. This evolution corresponds exactly to Mex., pi-tli, elder sister; but the form has extended to all sorts of nouns. Calling *-tli* the strong grade, *-tl* is the corresponding weak grade. Here the subject may be made clearer by an examination of *root* and *prefix* forms of *tṛ* and *dṛ:* (1) *-tla-* as a pronoun, ni-*tla*-qua, I-it-eat, (2) *root* forms. Examples: tṛ; Mex., til-ana, to stretch; til-auac, broad "across"; tṝ; tlani, down; tlani (*ni-te*), to win at play; Skr., trāti, to "surpass"; *dṛ, to tear; Mex., *tl*-an-tli, tooth, "tearer"; *dṛ + *ien (affix); tla-til-li, a wedge; Skr., dṛ, pierce, split, to "tear"; Mex., max-*tla*-tl, a belt; Skr., *madh- + tra- (strong grade); Mex., tl-ot-li, a hawk; tṛ, "across," + ud, out, away (weak).

17. (*a*) *The suffix -r.*—Tla-til-li (*supra*) and all similar forms with a *rôot* ending in -r-, -t-, or a vowel, suggest the question: Is there a suffix -r(i) in Mexican? This suffix was very rare in the primitive language (Brugmann, *op. cit.*, II. §118). Mexican euphony forbids *ltl*, hence the probability that such a form as Chimaltitlan, "Place-of-prayer," cannot possibly be associated with

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mṛ, to fight, but with mṛd, to be forgiving. Hence *ti* is not the copula, as in Coa-*ti*-tlan, "Place-of-snakes." And the probabilities are that tla-til-li, wedge, is *tla-til+tli rather than tla-til+r(i). Since *lt* is not allowable, Chimaltitlan could not be Chi+malt+ti.

b) *Affixes.*—(1) The possible infixes *-it-*, *-ad-*, in Mexican. If Mex., cauitl, time, weather, be correctly associated with Skr., çar-ád, autumn, we may postulate: caui- (*r*=*u*, which becomes *ui* before *t*), or *cau+it+l; but cf. Gr., Κρ-όνος (=χρόνος, time?), *Kar-onos (*kr*=*kṛ*≐*ca-*); cf. Mex., *ca-mo*-pal-li, dark maroon, and Gr., χρώ-*μα*, color, "chrome." The form *-itl* is very common in Mexican, also *-atl*, *-uatl*. Ten-tli is mouth, border, then, by extension, a *word;* tn̤, to stretch; and tenitl is a foreigner, "one of another speech." Differentiation would seem to forbid *teni-tl*. No doubt this *-tl* is another weak form for *tero in the sense "other" (comp. "more"); cf. Gr., ἀλλό-τρ-ιο-ς, the precise equivalent in weak form (*-tr-*=*-tl-*) being found in it. Will this hold good in te-tzauitl, a prodigy (Uitzilopochtli, War-god); Skr., styāyate, to harden? Omitl, bone, *ost, bone,+mitl, a post or "supporter"; Skr., mit, pillar (derived from the root mi, to set up, according to Lanman, *Sanskrit Reader*). It may be mi-tl or mit+tl (cf. Whitney, *op. cit.*, § 383, II).

2) The affix *-uat;* either *u̯ent*, or *ua*, for *u̯o*, plus *tl:* Mex., iz-ua-tl, leaf; *is, "quicken"; Skr., iṣ, force, vigor; Mex., -ua-tl may be, as suggested, *u̯o, ua+tl, or *u̯ent; Skr., -vant (-vat),+tl. The first of these affixes occurs in Mexican: pe-ua, to be first; *pṝ+ua; chi-ua, do, make; *dhe+ua; but *u̯ent is not so certain; ixtlauatl, campus; either ixtla-uat-l or ixtlau-at-l, unless it is ixtla-ua-tl; Mex., -auatl, door, I refer to the same original source as Lat., antae.

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c) *Roots ending in -t:* Mex., tec-patl, a flint, may be (1) tec; Skr., téjas, sharpness, "fire,"+pā, to keep; or (2) tec+pat-l, to eject (sparks); ic-patl, thread, must be *ric, a line, seam, +pā, to guard.

18. *The suffix -li, *-tli.* Nouns ending in *-li* number about one-seventh of the *tr* series, which stands: *-tl*, 4/7; *-tli*, 2/7; *-li*, 1/7. The affix *-li* follows a root ending in *r* or *t* (perhaps with a few exceptions from analogy). Mex., chi-mal-li, a shield; *dhə+mṛ; pil-li, son, nobleman; *pṛ, to "fill," "complete"; cal-pul-li, phratry; cal-li, house, +pul; Skr., púr, town; Gr., πόλις; Mex., Nauatl, the name of the language, "clear," "sweet-sounding," also applied to water or the weather; *root*, *nal, name of a town in Beloochistan, and nṛ; Skr., nṛ́, man, hero; cf. Nala (proper name); nára, "man"; hence, the Nahua; also gods, in Nahua-que tlo-que; but naualli, sorcery; nṛ +vṛ; Skr., vṛtrá, "restrainer" (of the cloud-cows that give the rain); mod. "medium"; Mex., ta-malli, a cooked roll; ta+mṛ, "rolled," or ta+mṛd, "crushed" (the meat in a tamalli is minced), te-malli, pus; perhaps, dhə+mṛ, "dead deposit" (ta, *supra*, is the strong grade, dhā); maceualli, a slave, servant; Skr., mṛṣ, not heed, endure, +vṛt, to be in an occupation; *marsa-ualtli; (*Comp. Vocab.*, p. 51, mā+sevā, "my service").

Remark.—Olmos (*Grammaire de la Langue Nahuatl ou Mexicaine*, p. 21) gives the form for clipping a noun ending in *-li*, in composition (*r*-root), as in y-tlaxcalh, his bread; no-calh, my house, calli. Other writers ignore *-h*, which plainly is nothing but the "Saltillo" or stress indicating that the noun has been reduced to its *root*.

19. *The suffix -in.* This affix is not fertile. In Sanskrit it indicates possession (Whitney, *op. cit.*, §§1183, 1230). The same idea prevails in Mexican in the names

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of "flyers" (*Morphology*, p. 26, *Remark*): pipiolin, a bee, "buzzer"; totolin, a hen; etc. It is also to be found in the names of a few other "animates": michin, a fish; Skr., miṣáti, to have the eyes open, be "pop-eyed"; Mex., tec-pin, a flea (root form); etc. With totolin, a hen, "balancer" (of motion in the wind), cf. Skr., tolayati, lift, weigh.

Remark.—The curious locution, ipal nemoani, is defined as "god"; i-pal, by means of, "mediante"; nemoani. The latter I refer to *nem, *nemb; O. Irish, nem, heaven; cf. Skr., nám-as, nábhas; Lat., nebula; Ger., nebel, mist (cf. Brugmann, *op. cit.*, II. §132, p. 419); but i-*pal* I refer to bhṛ, to bear.

20. *The affix -uh*, found in a small class of nouns, is *uk; Skr., uc-ya-ti, to be accustomed; ókas, home; Goth., bi-ūhts; Lith., jùnkstu; Mex., ueltiuhtli, eldest sister, "exalted in place"; vṛdh+uc; (*Comp. Vocab.*, p. 77, duhitṛ́); Mex., ach-ca-uh-tli, elder brother; Skr., ájati, he leads, +ka+uc, or aĉ, aç, to attain; Mex., quin-iuh-ti, "it was always so"; perhaps pi-*och*-tli, armpit, "hair place," with ĉ sibilant.

21. *The suffix -otl, -utl.* Perhaps for *-d, -ad, -ād:* Mex., ol-otl, corncob, "like a roller"; cf. Gr. *vâv-o-ς*, dwarf, *vav-ώδ-ης*, dwarfish; Mex., tototl, bird; tud+tud, thruster, beater (of air); *tutud (*Phonology*, p. 17, table A); but it may be tud-od-tl, "like a beater." No concurrent examples were found.

Remark.—Since *u* and *o* have almost fallen together in Mexican, these vowels are valueless for differentiation. Palma says (*op. cit.*, p. 116) that *o* is to be preferred in pronunciation. The reverse is true of derivation. In Mex., oztotl, a cave; Lat., ōs, mouth; we may postulate (1) os+tāt-l, "extended mouth," (2) ost+ad-, as above,

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or, finally, (3) ost+ōd, the ablative, "originating in a mouth," opening; cf. Skr., çukrā́ kr̥ṣṇā́d ajaniṣṭa, the white was born from the black. If this be an ablative form, it greatly strengthens the probability of the existence of a locative (§23) and an instrumental (§24).

III. Mexican Prefixes

22. The Mexican language is very poor in prefixes (*Morphology*, p. 7, augment). The prefixes *ta-*, *te-*, *teo-* are practically *otiose*. They are *ta, *te; Skr., tat- (tad); plu., te.

a) *Ta-* is rare and doubtful: Mex., ta-palc-a-tl, broken pottery; ta+Skr., bhraçyati, to fall, be ruined; Mex., ta-cax-xo-tia, to dig up, transplant(?) trees; ta+Skr., kaṣoti, to move, +xo-tl, shoot; Mex., ue-xotl, willow, "big shoot"; *qi̯ou̯; Skr., cyávati, to move from its place.

Remark.—Sometimes *ta-* is *not* a prefix: Mex., ta-paliui, be pimply, is doubtless ta+də, +pal-, "colored deposit"; cf. Gr., *ἐξ-άν-θη-μα*, a pimple, "colored deposit," also *θω-μό-ς* (strong grade), a heap; Mex., tauh, crown of the head, may be, (1) də+uk, "place," mound-like, or (2) to, our, +au, *aus, ears; Gr., *οὖς*, Dor., *ὦς*, ear; Mex., ta-paç-olli, a bird's nest; *də, to bind (strong grade); Gr., *δέω*, +paḵ, fasten, +ol-, round.

b) *Te-* (1) *pronoun*, (2) *prefix*, and (3) *first member of a compound.*

1) In a vast majority of the cases, *te-* is simply the pronoun te, someone; Mex., ta-tli, father, te-ta, someone's father; auitl, aunt, te-aui, someone's aunt, etc.

2) Mex., te-çacatl, a big straw; te, same as *ta*, +Skr., çāka, herb; Mex., te-cuechoa, to beat or grind; etc. Here *te-* is used much as also te-qui and te-te-uh are, which are

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emphatic prefixes in a few verbs (Olmos, *op. cit.*, p. 186); cf. Gr., δέ (conj.), but, and, which often seems superfluous.

3) Mex., te-uhc-tli (te-cu-tli), a chief; perhaps, Skr., day, dáyate, to allot, possess; Gr., δαίω, +*aus; Skr., ójas, might; Mex., tecutli is a synonym. *Te* (tetl), stone: te-apaztli, stone, water-trough; te-tzauia, to harden; te-callotiani, a mason.

c) *Teo-* (1) "very," and (2) *teo-* as the *first member of a compound.*

1) Mex., teo-cuitlatl, gold, very bright; Skr., cit-rá; Mex., teo-nochilia, to injure another; *nok̂; Skr., nāçáyati; Lat., noceo; Mex., teo-xiuh, a generous son; Skr., sū-nú; Mex., teo-tlac, very late in the evening; cf. Skr., darça, moon.

2) Mex., teo-calli, temple; *dieu̯; Skr., div, sky; Mex., teotl, a god. The genesis of *teo-* is uncertain. Cf. Skr., tu, expletive, and tu, to be powerful.

d) *The prefix qui-* (*ki-*) is also practically *otiose:* Mex., qui-ciaui, very tired; yollo-*qui*-mil, "very rustic," "how rustic" (in heart), a "Reuben"; cf., for this *qui*, Skr., kí-yant, how great, etc.

Remark 1.—The prepositive-objective pronoun, *qui* (*c*), is not in this category. Its origin is obscure and a mooted point; cf. ni-c-te-maca, I it to someone give; 3rd per. sing., qui-te-maca.

Remark 2.—(1) *Ti-* is not a prefix though at times seemingly so. Compare te-ach-cauh, elder brother, leader (§15 *c*, 1), and tiaca-uh, a valiant man, (Sp.) "animoso"; Skr., tyajati, renounce, risk.

2) *Ti-* in *compounds:* Mex., ti-anq-iz-tli, market-place; *de, "gifts," "goods,"+aṅg, to move; Skr., aṅgana, court; originally, perhaps, "gangway" (Lanman, *Sanskrit*

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Reader); Mex., ti-a-mic-tli, market-place; *də+mi̯k̂, to mix; Lat., misceo, *mic-sc-eo; but it may be dia-, an instrumental (cf. § 24), since (Skr.) miç is used with the instrumental (Skr. Dict.); Mex., ti-malli (temalli), pus (§ 18); ti-tich-ti-c (adj.), tight, short (clothing); ti-tich-oa, shorten; ti-tix-ia, to glean after the harvest; perhaps, *də, to cut off (Skr., dyáti), +affix -s- (if so, affix is *very* rare).

Remark 3.—*Que-* in Mexican begins many words and might appear to be an affix; but it is really the first member of a compound. The forms *que-* and *cue-* are used indiscriminately by Mexican writers and are, so far as I can discover, non-significant in phonetics. Both forms are *k* and not *ku* (quauhtla *pro* kotla). The latter sound should not appear in Mexican. Molina has cauitl, time, quauitl, tree; ca-n, where? que-n, how? why? cui-x, is there? all from the pronominal roots, *qe, *qi; Skr., kás, kím; Lat., quis; Gr., κῶς; Mex., quen-chiua, to wound; *ĝhan; Skr., han; Mex., cuen-chiua, to till one's paternal acres; Skr., kṣéma, "home." He is absolutely silent as to phonetics or reasons for his spelling. A considerable list of puzzling words is found with *que-*, *cue-* (separable), for the first member.

1) **Ke*(*n*), empty, void: Mex., cue-cue-no-ti, to be vainglorious; Gr., κεν-ός, empty,+Skr., nu, nāuti, to sound, praise; hence "empty sounds," "wind bag"; Mex., que-tzontli, large hairs in the armpit, "hollow hair-place"; que-xilli, groin, "hollow"; que-queloa, to ridicule, use "empty words"; cue-tzpalti, to be a glutton; *ken, empty,+Skr., spárdhati, to contend, strive (with); Mex., cue-tlauia, to wither; *ken, "consumed"; (for *tlauia*, see *Comp. Vocab.*, p. 82); que-que-tolli, small of the back; *ken+Skr., tolayati; Mex., que-ça-uin-toc, about to die;

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*ken+sa, wholly,+Skr., ūná, lacking; Mex., cue-xpalli, large hairs left in the armpits of boys when shaved; cue+AS., sparian, to spare(?); Mex., cue-cue-ço, to baste (sew), "useless sewing"; cue-chinia, to shake, move; Gr., κιν-έω+σκίδ-νημι, to scatter, break up(?); Mex., que-locha-ui, withered; *ken+Skr., rujáti, to "crush to naught"; Mex., cue-tlach-tli, wolf; doubtful, perhaps *ken, furiously,+Skr., trāsa, terror; Mex., cuetlachtli, wolf, perhaps also leather; Gr., κύτ-ος, Lat., cutis, Pruss., keuto, skin,+Skr., rac, prepare, or raj, color.

2) *Kes-, *kenst-: Mex., que-quetz-olli, the heel bone; Gr., κέστρα, a mallet; cf., for a similar idea, the name of the ankle-bone, (Lat.) malleolus, "little hammer"; Skr., kaṣ, to "scratch," to kick and push in a crowd; Gr., κεν-τέω, to prick; Mex., quetz-il-paina, to run on tiptoe; queç-necuiloa, to be lame; cue-cuech, cue-cuetz, shameless, debauched; Gr., κέντρων, a (torture-scarred) rogue(?); Mex., cuex-an-tli, a pocket; Gr., κέντρων, "patch-work"(?); (an=*i̯en); Mex., cuech-micqui, (lit.) "scared to death"; (Gr., κέντρον, goad, "motive"); Mex., quec-euatl, a piece of rawhide fastened on the hip to catch the ball in the game called "tlachtli"; Gr., κέντρων, "patch"(?); possibly, *κένστρων; (c=s).

3) *Kl̥: Mex., cue-tlani, (1) to break big things, "smash"; Gr., κλάω, to break; (2) crackling of a big fire; Gr., κλάζω, to crackle; perhaps Mex., cue-cho-a, to grind, crush, may be, rather than Skr., kárṣati, *kl̥+so (s affix, see ti-tich-oa, § 22 d, *Remark 2*, 2); Skr., çṛṇáti; Mex., que-loni, to dislocate a joint, "key" (Gr., κληΐς, κλείς; Lat., clāvus, nail),+lu, to loosen; or, possibly, *kel-oni; Mex., que-quex-olli, a crumb of bread; *kl̥=que+que-s +olli (affix s doubtful).

4) *Kṛ̥: Mex., cue-cue-yo-ca, cue-cue-yoni, to swarm

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(of ants, fleas, sparks, etc.); kṛ; Skr., kúla, a swarm,+ yóni, a "place."

e) *The forms, coa-, co-, con-, com-,* occur in compounds as the first member: Mex., coa-chiua, coa-notza, coa-teca, to be convinced; no doubt Lat., con, "with," cum, quum, *quom; Mex., co-aciui, to have gout; Skr., çū, to swell; Mex., co-mol-oa, to dig holes; çū+Lat., mōles, mass, "labor"; Mex., con-caca-uh-toc, expiring, *in extremis;* perhaps, con, "with,"+Gr., *κακ-ό-ν*, evil; "in a bad way"; (for -uh-, see § 20); Mex., co-monia, to cause excitement, a stirring of the people; Skr., gaṇá, crowd; Gr., *ἀγορά* (cerebralized); or else Gr., *κω-κύω*, to cry out; Lat., queror; *qu-es-; (cf. Skr., grāma, village); Mex., comoni, blazing, if cerebralized (*r*), may be referred to *ghar-mo, heat; Skr., gharmá-s, (cf. note, § 26, *Remark 3*); Mex., comon-*altia*, to bathe, sacrifice, is synonomous, and hence the difficulty of determining comon-altia; cf. Lat., ardeo, or Skr., ṛ, "make ready,"+*dhə, to put.

IV. Primitive Inflection

23. *The locative case.* The locative plural ending, *-su, -si,* has the appearance of a pure postpositive with the original meaning, *in* or *at* a *place* or *condition.* The singular ending is the same in Sanskrit and in Mexican: Skr., párvatasya pṛṣṭh-é, on the ridge of the mountain; Mex., Cauhtitlan chan-e, he lives at Cauhtitlan (chan= *ghzem). Locative expressing *condition:* Skr., Mitrásya sumatārí syāma, may we be in the favor of Mitra; Mex., maui-ço, to be wise, honored, mauiço-llani, he wishes to be honored, i.e., to be among the honored (plural *-su;* root, man, to think). The Sanskrit ending of the singular was *-i,* fusing with *-a-* to *-e;* but later *-i* and *-u* stems took the form *-āu* (Whitney, *op. cit.,* § 307 i). Mex., xal-lo, sandy, is doubtful; cf. adjectives in *-yo* (*Mor-*

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phology, p. 23); Mex., xi-ço, agreeable, "otorgando" (Sp.), said only of women, is less so; for, if *xi* be Skr., ji-nóti, *g^{v}i, Gr., *βίος*, Germanic, quick, then *-ço* would be a clear case of locative of *condition*.

Remark.—The ending *-su* is *very* rare in Mexican; but the ending *-l* is fertile, occurring in "domiciles" (place) and so-called possessives: Mex., cen-tli, cin-tli, corn; cen ocuilin, corn worm; cen-*e*, owner of corn, i.e., among those who have corn (condition); also ce-*ua*, owner of corn; Old Per., *-va*, possessive.

24. *The instrumental case.* In Sanskrit the instrumental singular in all genders ends in *-a* or *-ā*. Compare with this the Mexican affix -a: quauitl, a stick (wood), quauh-tla, a wood; or else quauhtl-a; if quauh-tla, we may supply the primitive locative affix, *tro, as in Gr., *λέκ-τρο-ν*, a bed, "lying down place"; but if we analyze as quauhtl-a, we have identically a Sanskrit instrumental of the form dātr-ā́. If the objection be raised that *ā* should be Mexican *o*, I may quote Brugmann (*op. cit.*, III. § 274): "In the present state of the question I consider *-a* the more likely of the two" (a or e).

Remark.—The existence of the locative and instrumental as fertile forms in Mexican would by no means lead to the conclusion that Mexican once had the noun inflection of the classic tongues. On the contrary it is an argument against such inflection. All Aryan inflection was originally *postpositive;* but the locative and instrumental are so specifically postpositive as to accord fully with the Mexican affix-scheme.

V. The Mexican Plural

25. The idea of number in Mexican is supposed to attach only to "animate" nouns, "cosas animadas." The

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plurals are very irregular. Nothing like a system prevails. Reduplication is common as in *teotl*, a god (teutl), *teteo* (teteu). The regular endings are *-me* and *-tin* ichcatl, sheep, ichcame; quauhtli, eagle, quauhtin. For *tribes* the bare stem forms the plural: Aztecatl, Azteca. The affix *-me* may be a primitive *-mi* strengthened to *-me*, and, if so, it was the ending of the *instrumental* dative and ablative plurals found in Lithuanian, Balto-Slavonic, and Germanic (Brugmann, *op. cit.*, III. §§ 367, 379). But this matter is too uncertain to go beyond the phase of suggestion here, though the probabilities of the existence of the locative and instrumental cases greatly strengthens the hypothesis, as well as the fact that these endings are bizarre in form in the primitive language and suggest miscellaneous *postpositives*.

VI. The Mexican Possessive Pronouns as Determinants

26. In Mexican, nouns compounded with the possessive personal pronouns are invariably clipped. Presumably, only the *root* remains, or at most the stem. Thus, ta-tli, father; no-ta, my father; ciuatl, woman; i-ciuauh, or y-ciuauh, his wife. Olmos (*op. cit.*, pp. 27–31) gives rules for these forms: "Nouns ending in *-atl*, *-etl*, *-otl*, *-utl*, change *-tl* to *-uh*," as atl, water; n'auh, my water. "Nouns ending in *-tli* simply drop *-tli*": ci-tli, grandmother; no-ci, my grandmother (cf. "kinship names," § 15 *c*, *supra*). Similarly, nouns ending in *-li* drop *-li* and take *-h* according to Olmos. Others ignore *-h*, which is plainly the "Saltillo" or stress indicating that the noun has been clipped to its root. Vowel stems take *-uh*, as in quanaca, a certain bird; no-quanacauh, my bird; or else they remain unchanged: tuça, rat; ytuça (ituça),

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his rat. Nouns in *-uitl* change *-uitl* to *-uh*, as chiquiuitl, basket; no-chiquiuh, my basket; but *-tl* may be dropped, as in auitl, aunt; n'aui, my aunt. Similarly, *-itl* may be dropped, as in comitl, an earthen pot; no-con, my earthen pot. This clipping of nouns must not be relied on as a *certain* indication of a root. But it has a decided value. Mex., camatl, mouth, becomes no-camac or no-can; Skr., cam, to sip (*m* final in Sanskrit roots becomes *n*, Whitney, *op. cit.*, § 143 a); Mex., no-camac should mean, in my mouth, and it is formed by analogy with the postpositive of place, *-c;* Mex., matlatl, red ochre, becomes no-matl, which is itself a typical Mexican noun and demands a search for the root; cf. AS., mædere; Eng., madder, a red or brown dye stuff; Mex., cauitl, time, would become no-cauh (*supra*, cf. § 18, *Remark*). Nouns prefixed to verbs observe the same rule: Mex., ma-toca, to touch; maytl, hand,+toca; Lat., tango; Mex., ni-naca-qua, I meat eat, naca-tl.

Remark 1.—In Mexican, *-t* (final) is not allowable (except in the perfect tense of verbs); and *-tt-* and *-rr-* are not permissible: Mex., tlauitl, no-tlauh, red ochre (cinnabar?); tlauia, to strike a light, may be *tṛ+rudh, red; Gr., ἐρυθ-ρός; *tr(r)ud-tl; by anaptyxis *tla-ud-tl, with *u* umlauted to *ui*, as in ilhuicac, heaven; Skr., rocaná. This would of course be a case of extreme phonetic change. Mex., -rr- in the *root:* vilana, to go on all fours; vilantli, lame; Skr., vellati, to reel.

Remark 2.—In words ending in *-itl*, it would seem that *-it* of the root (or the affix, § 17 *b*) regularly becomes *-uh:* Mex., iuitl, feather; (Skr., ví, bird); n'iuiuh, my feather; Mex., chiquiuitl, basket; no-chiquiuh, my basket (*supra*); *de, put+kṛt, cut "splints," or kṛt, a "production." This *-uh* may arise from analogy with roots

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in *-u*, like Mex., ilhuicac; Skr., ruc. It is impossible that the noun affix *-uh* (-uk, see § 20) should be transferred to these nouns with possessive prefixes and yet n'oquich-*hui*, my husband, from oquichtli, male, points to the occasional use of an affix in these forms; cf. no-ciuauh, from ciuatl, woman.

Remark 3.—In a few roots ending with a dental, the latter is dropped and *n* appears as final: Skr., sidh, (1) to drive off, (2) to accomplish; Mex., tzin, honorific, as in cauhtemoc-tzin, "perfected," "exalted"; tzin-cui, to shell corn, "take away the good part"; tzin-tetl, cement; tzin-eua, to haggle, "cheapen"; (tzintli, end, bottom, scarcely accords).[1]

[1] Is this "cerebralization"? Cf. Mex., te-*pun*-az-tli, from *plt (Skr., puṭa), fold, cavity (§ 1, *Remark*, 5); Mex., pe-tla, to split; *plṭ, cavity, +dṛ, to split; Mex., pat-io-tl, price; patioa, to cost; cf. Eng., "palter," to equivocate, use trickery (haggle?); Mex., xillantli (xil-yan-tli), a belly, womb; Skr., jaṭhára; Goth., kilþei (*Comp. Vocab.*, p. 93, has +lamb); Mex., yoli, to live, be conceived; Skr., vṛt, vártati, where the only change is dropping of *-t*.

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APPENDIX

A. *Syntax Outlines*

Based on Professor Sayce's article on Grammar in the *Encyclopædia Britannica* (ninth ed.), Vol. XI, pp. 37 ff.

Grammar includes, (1) Word-building, (2) Syntax, (3) "Accidence." *The sentence* is the unit or starting-point (p. 38). *The objective pronoun* is embodied in the verb in *Basque* (38). *Position* is the determining factor in Chinese (39). *A "mixed" grammar* is "almost, if not altogether unknown" (39). According to Professor Earle, *words* are, (1) "Presentive" and (2) "Symbolic." The former present objects or conceptions; but the latter, which are called "empty" by the Chinese, serve a grammatical purpose only (40).

Vowel changes of *a* to *i* or *u*, according to M. Hovelacque, indicated a change from *passive* to *active* in the parent Aryan (40).

The oblique cases are really adjectives or adverbs; but, according to Hübschmann, the locative, ablative, and instrumental have a logical origin and determine the logical relation which the nominative, accusative, and genitive bear to each other and to the verb. The latter cases are classed by him as purely "grammatical" (40).

The plural of the *strong cases* (nom., acc., voc.) is regarded by M. Bergaigne as merely an abstract form (40).

Gender is the product of analogy and phonetic decay. The parent Aryan originally had none (40).

The adverbial meaning of many of the *cases* shows how they crystallized into adverbs and prepositions (41).

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Prepositions in Aryan are of *late* growth, and they are simply transformed adverbs. *Conjunctions* were also primarily adverbs, and they are mostly "petrified cases of pronouns," like "*that*"; although our own "and" may equal ἔτι (?) and signify "going further." *Juxtaposition*, however, was the first form of the compound *or* complex sentence (41).

Infinitives are likewise of adverbial origin and come from the dative, the locative, and the instrumental, and also from the neuter stem as found in Vedic usage. Gr., δοῦναι and Skr., dāvấne are equivalents, the latter being a dative case (41).

The verb in Aryan, as in Semitic, seems originally to have indicated relation only; but the idea of time was soon added to the attributive relation, two tenses being developed, one for a continuous, the other for a momentary action (41).

The future in *s* may possibly involve the auxiliary *as*, to be, and this verb appears in various compound forms (Lat. perf., amāvī points to fuī, while scrīp-sī indicates the root of sum, and amārem is plainly amā-sem; but new modes and tenses were also formed by suffixes as well as by composition (42).

As to the *age of tenses* it may be said that some were late, as the usage of the Iliad shows, while others seem to have been lost and reproduced again. There are traces of a pluperfect in the Veda; but it has been wholly lost (42).

The passive is late and was not found in the parent Aryan speech. It grew out of the middle or reflexive, and the deponents show that *r* in Latin and Keltic had originally no passive force. "I am pleased" could be rendered by "I please myself" (42).

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B. *Order of Words*

Based on the same article, p. 42.

The original Aryan order of the sentence, according to Bergaigne, was, (1) object, (2) verb, (3) subject.

Semitic reverses the order of attributive words, and the adjective follows its noun; but it precedes its noun in Aryan. *English* is true to the antique Aryan arrangement, while Latin varies much. A distinction between attributives used merely to qualify and those used predicatively gradually arose, and the latter were placed after their nouns. The adjectives thus came to be used as a predicate, the copula being implied: *deus bonus* [*est*].

C. *Miscellaneous Items*

Based on Professor Siever's article on Philology, *op. cit.*, Vol. XVIII, pp. 781 ff. and Professor Whitney's, *ibid.*, pp. 765 ff.

All Indo-Germanic words and forms must be traced back to simple monosyllabic elements called *roots* (p. 789). *Derivation* and *Inflection* are based on a system of *suffixes*. A few *infixes*, mostly nasals, occur. *Prefixes* in the proper sense, do not seem to have occurred. The exact number of *cases* used is uncertain (789).

The infinitive had not been developed in Aryan, its place being taken by the oblique cases of verbal nouns (790).

Comparative Syntax is the youngest branch of Aryan philology. It deals mostly with original meanings and the primitive uses of the cases, modes, and tenses (790).[1]

"*Phonetic change* has nothing whatever to do with change of meaning, the two are the product of wholly independent tendencies" (Whitney, p. 772, italics mine).

[1] A list of works on Comparative Syntax can be found in Sayce's *Science of Language*, Vol. II, p. 361.

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Euphony is "a false principle"; for it is nothing but "an idealized synonym of economy" (773).

(*Remark.*—Such, for *so-like*, and which, for *who-like*, illustrate this, as does cost, from its Latin equivalent, *con-stare*, and preach, from its Latin equivalent, *praedicare.*)

In its *inflection*, *Aryan is agglutinative: Semitic*, on the other hand, is inflected by *internal changes* in the *root* and *stem* (774).

Language is never a *proof* of race; but it is, nevertheless, very generally the *best guide*, in some degree, to *race identity in primitive times* (777 f.).

Two accusatives, "it to him," have a peculiar treatment in Mexican. See *Comp. Vocab.*, pp. 16 f., and *Prim. Aryans of Amer.*, p. 78.

D. *Mexican Syntax*

Based on the *Grammaire de la Langue Nahuatl*, the first edition of which was prepared by André de Olmos in 1547, and also on the *Gramatica de la Lengua Azteca o Mejicana* by Miguel Trinidad Palma, 1886.

The Mexican verb, with its Indicative, Imperative, Optative, Subjunctive, and Infinitive modes, which involve tenses corresponding more or less closely with classical models, as is shown by the paradigm (Olmos, pp. 68 ff.), has also gerundive forms, or forms that are so classified. On the whole, it is not too much to say that this verb is more Aryan in its general character and inflectional forms than those found in some of the known members of the Indo-Germanic family of languages, and it seems to contain traces of original Aryan forms and usages.

It resembles the verb in Greek and Latin in using the present for the perfect or imperfect if the action continues, as in such a sentence as, "I have been at home

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for a long time." The perfect is used for time wholly past. The future may be used for the perfect, and the perfect for the pluperfect.

I. The *subjunctive*, in conditional forms, is suggestive, as examples will show. They are from Olmos, on the pages cited.

a) Yntla (intla) nitemachtia, tlein ic notech tlamiloz yn (in) tlatlaculli? If I teach, why should he (they) blame me? (Miloa, lit., "end," "upset.") P. 203.

b) Yntla uelh ninemini[1] aquen ninochiuazquia. If well I live, in nothing would I harm myself ("do" myself). P. 203.

c) "*If*" *and the future*, etc. Yn ihquac, iniquac, when (if).

1) Yn ihquac nictlaçotlaz (ni-c-tlazotlaz) in Dios, ni-qualli niez. When (if) I love God, I shall be good.

2) Yn ihquac nitemachtiaya, nopan o-mo-chiuh y. When I preached (if I should, or were to, preach), etc. (imp. Ind.). P. 84.

d) *Ni* followed by *quia*, "if I had, I would"; pres. with fut. perf. subj.: Yntla nictlaçotlani Dios, amo niualazquia mictlan. P. 130.

e) Yntla onitemachtiani, ye onitemachtizquia; *or* Yntla nitemachtizquia, ye onontemachtiani. If I had had to preach, I should have preached. P. 203.

f) Yntla onitlaquani, amo occeppa nitlaquazquia. If I had eaten, I should not eat again. P. 203.

g) Yntlacamo xinechmolhuiliani, ye onicquaca in xocotl; *or* ye nicquaznequia; *or* nicquazquia. If you had not told me, I should have eaten the apple. P. 203. In these forms the perfect is used for the pluperfect. See p. 80 and (*ibi*) *note 1.*

[1] Imp. subj. of nemi, with second form, *nemizquia*. P. 129. (Palma, p. 45.)

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h) Yntla ticquaznequia in nacatl, tleica amo achto ic otinechmonauatili? If you wished to eat meat, why did you not first ask my permission? P. 203.

II. *Para, para que; "that I may"* forms.

a) Ynic (inic) uelh (uel) temachtiloz, monequi nemachtiloz. That I may well teach, it is necessary that I study. P. 207.

b) Ynic uellayeculhtiloz in Dios, monequi uelh ic necencaualoz. In order well to serve God, it is necessary well to prepare. P. 207.

c) Ynic oacic (*or* oacito) Pedro Mexico, cenca ic ototocac. That Peter shall have arrived in Mexico, he must hurry. P. 207.

d) Ynic uelh oquichiuani in calli, achto monequia uelh omomachtiani. In order that he may have done up the house well, first it were necessary that he has learned. P. 207.

e) Ynic nitemachtizquia, ninotzalozquia. In order that I preach, I must be called. P. 207.

f) Ynic tlayeculhtiloz Pedro, ualhuiloaz. In order that Peter may be served, they must (turn) to service. P. 208.

III. "*When*" forms, perfect and pluperfect.

a) Ma omic in Pedro, yn niuallaz. If Peter had been dead when I arrived. P. 206.

b) Omic in Pedro, in oniualla. Dead was Peter when I arrived. P. 206.

c) Omicca in Pedro, in oniualla. Dead had been Peter when I arrived (but returned to life). Pluperfect. P. 206.

IV. *Until, "hasta que"* (*?*). *Ixquich, inoc, inoquic.* Ixquichcauitl inic oti-uallaque; until ye came (Molina, *Vocab.*).

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a) Amo ni-mitz-cahuaz, intlacamo iquac otinech-macac; *or* intlacamo achtopa ti-nech-macaz, in ti-nech-huiquilia. I will not leave you, until you have paid; *or* unless you first shall pay. Perf. def. or fut., with Indicative. Aryan requires a Subjunctive. P. 184, note 1.

b) Ynoc (inoc) nitla-cuiloa, nican timotlaliz (fut.). While (until) I write it, seat yourself here. P. 184.

c) Ynoc nitla-cuiloa, oc ximotlali. While I write it, remain seated. P. 184. (The paradigm on p. 68 would lead us to expect -tlalia; but see Palma, p. 63.)

V. *When* (after). Muztla yn otitemachtique, titla-quazque. Tomorrow after (when) we have taught, we shall eat. P. 209.

VI. *Adverbial Phrases.* (The references are to Palma.)

a) *Otlatzontequiloc* "itech tlapopololtin" *in aquique amo ohuelit quin tlaxtlahuaz ipampa in i-netoliniliz.* He was sentenced "with costs" which he could not pay on account of his poverty. P. 94.

b) In telpocatl ocallac "itech in tlatlaliloyan" oqui ilhuique, ma moyeyantiani, ac amo oquinec qui chihuaz. The young man burst "into the wardrobe," they told him to sit down, which he did not wish to do. P. 94. (The -que serves as a conjunction. *Ma*, etc.=imp. Subj. *Ac*=rel., referring to the preceding clause.)

The *object* regularly follows the verb with the sign "in." Tehuan tic huicaya *in tlaolli.* P. 95. (But it precedes, if compounded, ni-*naca*-qua, I-meat-eat.)

A phrase may be incorporated. Nic nequi nicuaz tzopelic; *or*, by incorporation, nicuaznequi tzopelic. P. 98.

VII. *Although . . . yet.* Immanel ni pinahua tlein mach nic-chihuaz? matel nino-yolcuiti. Although I

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am ashamed, what in truth must I do? Why confess? P. 98.

VIII. *Or* (*nozo*). Ica chicahualiztli *nozo* ica necayahualiztli. P. 104. See *infra*, XXIII. *a*.

IX. *Neither . . . nor* (*amo . . . amono*). Amo tic tlazotla in motatzin, amono in monantzin. Thou lovest neither thy father nor thy mother. P. 85.

X. *Emphasis.* Direct construction. In yectiliztli pepetlaca occecaye itech in amo ipatiyo in tlapololiztli. Inverse construction. Itech in amo ipatiyo in tlapololiztli ompa occecaye pepetlaca in yectiliztli. P. 195. See *infra*, XXIV. *a*.

XI. *Participles.* (Ablative absolute.) Tlacati in tlacatl itech aompayotl *tlaquimilolli netoliniliztli.* Born is man with nothingness, involved in misery. P. 106.

XII. *Possessive nouns.* (Subject and object.) *Genitive* and *dative.*

a) In tlaquihua iconeuh onech huiquili ce patli. The son of the rich man brought me a remedy. P. 107.

b) In iteopixcauh in n'altepeuh tech momachtilia cualli domingotica in itlamachtilzin in Totecuyo Jesucristo. The priest of my village explains carefully to us the doctrine of our Savior, Jesus Christ, every Sunday. P. 107. (The *gen.*=poss. pron. before the noun. The *dat.* is indicated through the verb.)

XIII. *Verb as infinitive* (two dependent). Onic nec nic chihualtiz motlaloz in titlantli. I wished to hasten (to make to run) to the messenger. P. 107.

XIV. *Ownership.* Forms indicating possession.

a) Inin tlalli n'axca. This land is mine (lit., my property).

b) Inin calli no-tech pohui. This house to my account, "evidences" (belongs). P. 108.

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XV. *Before.* (The references are to Olmos.)

a) Oyuh yalhua ni-ualla in ti-ualla. I came one day before you.

b) Quin yuh yeua ni-ualla in ti-ualla. I came a little while before you came.

c) O-qui-muztla au-uallaque in ni-ualla. You came a day after I came.

d) Muztlatica ti-nech-ualitzta. You came a day after (I did). P. 210.

XVI. *Romance reflexive*, "se" (Sp., se leer, etc.).

a) Uelh nic-poa yn amuxtli. I read the "book."

b) Uelh ni-tlatoa. I speak. P. 208.

c) The use of *ne.* (The reference is to Palma.) Ne-tla-icoltilo. "It covets itself." P. 89.

d) *Nino*, *timo*, *mo*, etc., are also used. (Olmos, p. 100.) Mo-chiua, it does itself, is done.

1) Qui-mo-cuitlahuia in nopilhuan. My children are cared for.

2) Ne cuitlahuilozque in nopilhuan. (Pass.)

3) Miec tlatlacolli, mo-chihua. (Lit.) many sins commit themselves (cf., *supra*, A, the *passive*). For all three, see Palma, p. 100.

XVII. *Passive voice.* Not made from the active.

a) Nic no-tlazotilia in Teotl. I love God. (Palma, p. 89.)

b) Nech mo-tlazotilia in Dios. God loves me. (*Ibid.;* Olmos, p. 99.)

c) Ytechpa (itechpa) in Dios ni-tlaçotlalo (*ego amor a Deo*). (Olmos, p. 99.)

XVIII. *Continued action. Present,* Subj. in *-ni; past*, imperf. in *-ya.* (The references are to Olmos.)

a) Yuh ni-te-machtiani. Thus I am accustomed to preach. P. 208.

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b) Yuh ni-te-machtiaya. Thus I was accustomed to preach. P. 208.

c) Yn iuh tlamanca; *or* tlamania yeuecauh, no yuh tlamani yn axcan. Just as they were accustomed (to do) in ancient times so they are now. P. 209.

d) *That I may.* Niaznequi inic ni-te-machtiz; *or* niaznequi ni-te-machtitiuh. I wish to (that I may) teach. P. 209. Ni-te-machti-z (-tiuh) is a *future.* Cf. the use of a fut., Ind., in Latin and Greek for a Subj. form. This may be a Subjunctive.

XIX. "*Attributive*" *position.* (The references are to Palma.)

a) In huey tlatoani quin-pepena, *itech in huehuey altepeme*, tlayecanque (-yac-?) inic quin-yechuicazque in itlacohuan. The governor chooses among the districts leaders who shall govern the subjects. P. 99.

b) In huey teopixqui tech titlanilia in teopixque, ipampa in toaltepehuan intech monequi ma quin machtican in itenahuatiltzitzihuan in Teotl Dios. The bishop sends us priests, because our towns need those who can tell plainly the commandments of God. P. 99. *Ipampa* is here used with the fut. for a Subj. form, meaning, "because," "for the reason that."

XX. "Although . . . not yet."

a) *Ye* tlane in piltzintli *manel ayamo* ixtlamatilice. Already the child possesses teeth although he does not yet possess the use of reason. P. 98.

XXI. "*Genitive partitive.*" *Ce* or *ceme*, one.

a) Ceme tehuantin Tlaxcallan yaz. One of us will go to Tlaxcala. P. 97.

XXII. *Adjectives.* These usually precede their substantives and lose their endings: tlazoxochitl, a precious flower. P. 96. This is for tlaçotli+xochitl; for Palma

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is more modern than Olmos or Molina, and his forms differ from theirs in consequence. Iztaccihuatl, a white woman. P. 96. (Iztac+ciuatl.) One adjective may also qualify another, and neither loses anything; tliltic-nextic, black-gray, black-ash-colored. P. 96.

XXIII. "*Cause, instrument*," etc. *Ica . . . nozo*, "with . . . or."

a) In aqualtiliztli mochihua ica ome tlamantli, ica chicahualiztli nozo ica necayahualiztli. Injustice is committed in two ways, either with violence or with deceit. P. 104.

XXIV. "So . . . as." *Itech . . . ompa*, "in . . . there."

a) Itech in amo ipatiyo in tlapololiztli ompa occecaye pepetlaca in yectiliztli. Virtue shines principally in the scorn of (idle) pleasures. P. 105. (*In* the loss of pleasures, *there*, etc.; it so shines as it scorns pleasures that are useless.)

XXV. *Romance* (reflexive) forms ("cosa vuol dire") express necessity, etc., using the verb *nequi* and the impersonal pronoun *mo*: mo-nequi in tlanahuatilli, the law necessitates itself, is necessary. P. 108.

XXVI. *Special words and idioms.* (The references are to Olmos.)

a) "*And*," auh. Auh yu-axcan (iu-axcan), and at present (even now?).

b) "*But*" (except), Sp., "menos," oc-ye-amo.

c) "*Then*," "*when*," Sp. "entonces," yquac (ihquac). Possibly ic+ac. Ac, *who, which.* Ic, (prep.) *with*, "con"; (conj. and adv.) *for so much, for this, at that time, when*, etc.

The *conjunctions* are classified by Olmos, pp. 194 f. *Greek and Latin sequence* can be found in any of the

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grammars. Comparisons with the Mexican will be suggestive.

d) Aquen nino-chiua. I have nothing, nothing ails me. P. 180. Cf. Fr., avez-vous faim? Qu'avez-vous? Je n'ai rien.

e) Çan uelipan moztauiz nacatl. The meat will be salted properly (fairly well). P. 181. Çan uelipan, "so so," fairly. Sp., cosi cosa.

f) Cuix mo; *or* cuix monel huel niaz? N'irai-je donc pas? P. 182. Cuix mo? Not, therefore? Not, then? Ne ce pas?

g) Ye ipan ti-cate yn neçaualiztli. (Already) we are in lent (fasting). P. 186. Ye=Sp., ya, already.

XXVII. *Infinitive with nequi:* "itoz nequi," "cosa vuol dire." (Two forms.)

a) Ni-tla-quaz-nequi. P. 86. (Paradigm, p. 70.)

b) Nic-nequi ni-tla-quaz. P. 86. (Paradigm, p. 70.)

These forms vary with the time to be expressed, the imperfect having ni-tla-quaz-nequia, for example, and the perfect o-ni-tla-quaz-nec. P. 86.

Editor's Note.—At this point the MS ends, and the work is left incomplete. Expansions were plainly contemplated; but they were never made. Where the intent was clear, the needed additions have been put in. It is impossible to go further than that in such a work. One or two items are in doubt. It has been impossible, for example, to verify the expression, "cosa vuol dire," which seems to be some Mexican colloquialism of the present-day Spanish. It occurs twice just above, meaning, "Do you wish to say anything?" See *Comp. Vocab.*, p. 58.

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ADDENDA ET CORRIGENDA

Mexican in Aryan Phonology

[Lines marked *b* are counted from the bottom of the page.]

Page 5, line 2*b* read: 87.5 per cent | 53 per cent | 51.5 per cent | 49 per cent

6 13 " ε, α, η, ει | ι, ει

7 5 " οἰωνὸς for ὀιωνὸς

17*b* " *xonexca* for *xonexċa*

16*b* " jñā for jña

15*b* " (see IV. sec. 4)

8 7 add: See formation of "Reverencials," Olmos, *Grammaire de la Langue Nahuatl*, p. 164.

10 read: *tomb, mound;* for *hill;*

9 14 " δαίς for δαῖς

13*b* " *bhṛ*, bí-*bhar*-ti, φέρω,

10*b* insert: pal-*euia*, to aid;

10 10 read: *snegas;* Russian, *sniegŭ;*

11*b* " *jan* for *jña*

10*b* " γένυς for γενύς

9*b* " *hánu*, for *hanú* (?)

8*b* " **jánu* for **janú*

11 4 " *jñā* for *jña*

6 " *cōl-um* for *col-um*

6*b* " *riṇákti* for *rinákti*

12 6–7 " *hári, harít;* Gr., χλω-ρό-ς, χλό-η; Goth., *gul-þ;* AS., *geolo;*

9 " *Ihia, ihiyouia* (Olmos, *op. cit.*, p. 159), to hate; Gr., ἔχ-θ-ος, ἐχ-θ-ρό-ς (?). (See Table F.)

12*b*–11 " ἔρ-χο-μαι for ἔρ-κο-μαι

13 8*b* " revered for reverend

14 13–14 " *sūcus, sūgo* for *sucus, sugo*

15 2 " *vyā*, wind around.

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Page 16, line	2	omit:	, from Sanskrit, *pdrā*?
	4*b*	read:	*çī*, for *çi*,
	3*b*	"	*çī* or *çyā*, for *çi* or *çya*,
	1*b*	"	*çī*, *çyā*, for *çi*, *çya*,
17	2	"	In Iranian, *z* becomes *d*.
	10*b*	"	δἴϛ-ος | dīvus
	9*b*	"	ὁδός for ὅδος
	8*b*	"	*σϛῖδος, ἶδος | sūdor
	5*b*	"	fīo for fio
	4*b*	"	dhṛ+na+mit | *θρό-νο-ς* | frē-nu-m
	3*b*	"	duḥkhá for duhkhá
18	3	"	pecu for pecus
	4	"	bhaj | *φηγός* | fāgus | bōc (beach) AS.
	6	"	būgan for bugan
	7	"	palātum for palatum
	9	"	*πότος, ποτός* | pōto
	11	"	piṇḍa for pinda
	4*b*	"	ápi for apí
19	3	"	*dhā*, *dhī*
	7	"	caesaries for caessaries
	8	"	kārú for karú
	11	"	dhā, dhī
	5*b*	"	**θίγω* for *θίγω* Also dāg-, for dāg,
20	7	"	cōc for coc
	12	"	fū-ti-s, fōns | geōtan, AS.
	5*b*	"	yuh, *so*, *as*, *thus*
21	5	"	*sīv*, *sīū* for *siu*
	7	"	sīū for siu
	10	"	aurōra for aurora Also AS., for Goth.
	9*b*	"	mā̆ns for mā̆ns
	7*b*	"	scōria for scoria
	4*b*	"	scāla for scala
	3*b*	"	ūvēns for uvens
	2*b*	"	chā̆ga for chaga
22	1	"	*vṛ, ūrmi | *εἴλω*, **ϝιϝλω*?
	4	"	*μά-ραγ-να* for *μα-ράγ-να* Also -ente for -enta
	5	"	palātum for palatum
	8	"	vṛj for varj

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Page 22, line 4*b* read: raṅh for raṅh
8*b* " luṭh for luth
2*b* " ṛtú for rtú
23 1 " ἔρχομαι for ἔρκομαι Also īra for ira
9 " geolo for geōlo
10 " χλό-η for χολὴ
12 " rectē for recte
24 7 " 1555–1571.
9 and 12*b* read: Rémi Siméon

Primitive Aryans of America

27 12 and 12*b* read: *bhid* for *bhīd*
28 11*b* read: ἶδος σϝῖδος, Latin, sūdor,
6*b* " " "
29 7 " mēl for meal
9 " īṅkh for īṅkh
16 " *maregh* for *meregh*
11*b* " ūvēns for uvens
9*b* " ochs for ochse
34 9*b*–8 " sakalanītiçāstratattvajña,
37 8–9 " Sanskrit, *dhā*, weak form *dhī*, Also *dhī* for it
10–11 " Originally, *dhā*, weak form *dhi*,
39 4*b* " *dhā*, *dhī* for *dhī*
3*b* " *dhṛ* for *dhr*
40 9 " scāla for scala
47 12 " *gain* for *lose*
14–16 omit: the second is . . . . words literally.
48 3 read: hekatón for hékaton
49 1 " fisc for pisc
10 " *bíja* for *bija*
52 11*b* " lighted up; for to light up;
5*b* " *çyāma* for *çyama*
53 3 " Çyāmá for Cyâmá
16 " " " çymârá
62 11*b*–9 " -macac (-macac-) for -mac (-mac-)
63 2 " onicte-macac for onicte-mac
69 16*b* " otimotlalticpacquixtico.

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Page 85, line 16 read: τεθνεῶτος for τεθνώτος
89 13 " *quattuor* for *quatuor* (Also in l. 18.)
93 7 " παχύς for πάχυς
8 " bhrātr, brother; phrâtēr,
9 " frāter for frater
10 " *θίγω for θίγω
94 9 " *v*, *u* for *vu*
18 and 9*b* read: παχύς for πάχυς
11*b* read: excaldāre for excaldere
95 13*b* " *gh^{v}arm for *g^{v}arm
10*b* " quattuor for quatuor
96 7 " *hu*, **ghu*; Latin, *fū*-t-is;
8*b* " apparently, for apparently
97 3 " árti for árta
4 " *tntó* for *tntó*
98 16*b* " *quattuor* for *quatuor* Also *vier* for *fier*
99 3 " scāla for scala
4 " çan çe, çaz çe;
103 8*b* " *tulā* for *tula*
105 17 " (plural of above?)
18 add: Matlactlaman+*ix* (ix-quich), "as many as ten." Cf. Skr., ékāika (*eka*+*eka*), one singly; Mex., ce-ce+yaca, each one.
117 17*b* read: dāsá for dasá
135 3*b* " Amaquemecan for Amaqemecan
137 3*b* and 2*b* read: *dhī* for *dhi*
140 4*b* read: bhrāj for bhraj
144 8*b* " τέκ-των for τέκ-τον
147 7 " *rindkti* for *rindkti*
161 11 " *devátā* for *devatá*
162 12 [The Sanskrit equivalent of vṛshá-kapi is vṛṣá-kapi; but the form has been left as originally written. See p. 53, l. 6*b*, and p. 58, l. 17*b*.]
181 10*b* read: E. W. Hopkins for Morris Jastrow, Jr.

Comparative Vocabulary

17 17 read: anal*o* for anal*o*
19 13 " παχ-ύς for πάχ-υς (Also 7*b*.)

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Page 19, line 14 read: *saraṇa* for *saraná*
14*b* insert (after rishi): (ṛṣi)
12*b* read: ápi for apí
9*b* " excaldāre, bathe in warm water.
20 11 " *hū*, to call, *-hū́-ya;*
17 " pinv, pi for piv
21 3 " *hṛṇīté* for *hṛníte*
11*b* " *sīv* for *siw*
1*b* " *cuechoa* for *quechoa*
25 6*b* " ájati; Gr., *ἄγω*,
1*b* " *ἦν-εγκ-α* for *ἤν-εγκ-α*
26 1 add: Cf. *κάτω*, down.
6*b* read: Lat., *al*-tu-s, "high," arx, arceō, "ward off"; Gr., *ἀρκέω*,
1*b* " ārd-rá for ard-ra
27 8 " murmuring for to murmur
12 tr. and read: a *book*, atl+*moxtli;*
17 read: imá for amí
9*b* " *ἄν-ιππος* for *αν-ιππος*
28 7 " aṅhú for anhú
17 " *acuetzpalin* for *acuetzpallin*
14*b* " vṛṣ for vṛs
8*b* " *ἄω-το-ς*, wool, "down," "blow"
7*b* omit: Skr., ... *ol-a-tl. Add: Cf. Skr., árvant, "runner."
5*b* add: Cf. a+vodh.
3*b* read: Skr., áva, grace, favor; Avest., avah-, protection.
2*b* " óṣadhi, "herbs," for ósadhi, "herbs." Add: *aṵ-s-a (Brug., II, p. 413), *aṵ-ṣa-dhi, help medicinal, =ava-s-; Mex., *ava*-que, citizens, "protectors"; qui-*avatl*, door, "rain-protector."
29 14 " çinásti for çináṣṭi
11*b* " *ὕδρα*, **jýδρα* (?)
7*b* " *στᾶ-μεν* for *στα-μεν*
30 11 " *ἔ-στη-κα* for *ἐ-στᾱ-κα*
17 " ánu-*ka*-s for anú-*ka*-s
15*b* " kákara for kaka

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Page 30, line 13*b* read: kā́çate, shine, make a show; for kacaté, bind;
12*b* " *κιγκλίς* for *κίγλις*
31 2 " pṛṇā́ti for pṛnā́ti
5 " hū for hu
6 " cup;' for cup. Add: Lith., žamba, mouth; *ĝombho-s (Brug., I, p. 264).
14 insert (end): *ĝhans-;
15 read: ānser for anser
32 9 " tulā́ for tula
12*b* " only, for only
10*b* " *μία*, **σμία* for *μια* **σμια*
1*b* " *uat-l;* for *uat-l*+
33 16 " çā for ça
12*b* omit: vídhyati,
8*b* read: aṣṭā́dhika-navati, ninety-eight.
3*b* " vañçá for vançá
34 6 " dhí+dhí for dhí-dhí
11 " be lost for to lose
13 " *ōs*, mouth, *estu*-ary; for *ost*, *ust;*
16 " mṛdha for mardha
1*b* " *dhə for *dhē
35 1 " duḥkhá for dukhá
3 " turáti for túrati
6 add: *chopinia*,
7 read: *ἐάω* for *εάω*
8 " **σεράω*, *σύ-το* for **σέραω*, *συ-το*
15*b* " *ἀστήρ* for *σίδηρ*
36 7 " gū́hatī for gúhati
10 " jaundice for gall
15 " kúla for kulá
13*b* omit: as çālā́
2*b* read: kṛṇóti for kṛnóti
1*b* " kāryà for kāryá
37 11 " kṛṣ for krṣ
11*b* " kampate for kámpete
38 2 " kañkaṇa for kañkani
3 " *κανάσσω* for *καμάζω*
7 " oc-cul-o for oc cul-o

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Page 38, line 15*b* read: σκῶρ for σκώρ
9*b* " kāç for kāc
8*b* " kâça for kaçá
39 14*b* " sū, bring forth, or su, press out,
3*b* " sūdáyati for sudáyati
40 3 add: Cf. στόμα, mouth, or point, edge.
11 read: Ep. ἔ-εσ-το for ἑ-έσ-το
16*b* " ṛṇóti for ṛṅóti
14*b*–13 " sv-alaṁ-kṛta for av-alam-kṛta
10*b* add: Cf. Skr., yákṛt, liver; Gr., ἧπαρ; Lat., jecur.
6*b* insert (after desire): *leubh;
5*b* add: Cf. lā-las-a-s (Brug., I, p. 212).
3*b* read: ἀρόω for αρόω
41 4 " μῦμος for μίμος
8 insert (after pálati): fly, caus.,
12 read: ἐσ-τί for ἔσ-τι
15 " ṛṇóti for ṛnóti Also ὦρ-το for ὤρ-τω
6*b*–5 " *ἄλθω, ἀλθαίνω, heal; Zd., ared, "grow"; for ἄλθω, "grow;"
42 8 " i-cual-aquian for i-qual-aquian
9 " αὐχ-έν-ι for αυχ-έν-ι
8*b* " κῶνος for κώνος
43 6–7 " ἱκέ-της, a suppliant; ἱκνέ-ο-μαι,
8 " āgnian for āgan
10 " weorthan for weorthen
17 " çuṣ for çus
15*b* " ūṣ-mán for us-man
9*b* " kṛtá for krta
8*b* " cūḍā for cūdá
3*b* " cáyati for cíyeti
44 1 " hári, *ĝhṛ, *hṛ,
4 " *χάω, χάσκω for χάω
7 " jáhāti for júhāti
14 " vṛṇákti for vṛnákti
15 " *wrincle for wrincle
7*b* " lañgh for lañg
45 2 " ὀρυμαγδός, ὀρυγμαδός, a roar, ἐρεύγομαι,
14 " ríṣyati for rísyati Also ríṣ for rís

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Page 45, line 16 read: ἔρως for ἔρως
12*b* " nama for namian
11*b* " luṭh for luth
46 2 " ἐνί for ενί
3 " grathnáti for grathnáti
16 " *rā́-s (rā́-m), rāí, for rā́-s,
13*b* " jeterŭ for jeterŭm
9*b* " uttaraṁ dā for ultaraṁ dā
47 2 insert (after çvan): gen. çúnas,
16*b* read: stighnoti for stinnóti
15*b* " stigną for stigna
14*b* " stīgan for stigan
1*b* " *nanauatl* for *nauauatl*
48 6 " sabh-á for sab-há
17 omit: páçyati,
6*b* read: στόρ-νυ-μι for στορέγω
3*b* " *citlalin* for *citlallin*
49 4 " sūs; AS., swīn, *su-īna;
7 " yuk-tá for yuk-ti
8 " *νι-ός*; O. Slav., synŭ; Ger., sohn; AS., sunu; Eng., son;
11 " ἀγίζω for ἀγιάζω
12 " izcalia for izcalli
15 " iṣáyati for isáyati
16 " kāláyati for kaláyati
15*b* " *citlalin* for *citlallin*
13*b* " στραγγ-ός for στράγγ-ος
6*b* " *choqu-iztli* for *choc-iztli*
50 4 " *iré*, as nī, to lead, ninyi*ré;*
5 insert (after *duh-úr*): (*duh-ús*)
11 read: duhré for duhrē̆
8*b* " māṅsá for mā́ṅsá
1*b* " *ma;* as má-vant, like me.
51 2 " *mā, mine, mā, me
14*b* insert (after redup.,): to make
52 3 read: *man*, to think, maṅh, make great; Gr., μέ-μον-α, Lat., me-min-i, keep in mind; māno,
8 " *tala-tāla* (*tala*-ghóṣa),

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Page 52, line 11 read: strength, spirit; for mind;
12 insert (new line): **matoca**, touch with the hand; Lat., tango.
13 read: çṛṇâti for çṛṇáti
16 " marisyáti, to die; mṛtá, dead;
17 " maurþr for maurþa
17–18 " mṛtyu-bhaya for martyu-dhaya
10*b* " viveṣṭi for vivéṣti
53 3 " yácchati for yáchati
7 " mi (weak form of mā), measure;
17 " mōnath for monath
4*b* " soḍhá for sodhá
1*b* " mát-sya for mad-sya
54 2 " miṣáti for misáti
7 " mih-hil; cf. Gr., *μεγ-ά-λη*.
17 insert (before Lat.): mē-ní, a missile;
14*b*–13 read: mṛ, to fade away; O. Per., mar, to die; Avest., mahrka, death;
11*b* " ahám, tvám; acc., mā, tvā; Gr., *μέ*, *σέ*; Lat., mē, tē;
6*b* " *ὀ-μίχ-λη* for *o-μίχ-λη*
5*b* " mīgan for migan
2*b* " *ἀ-μέλγ-ειν*; Lat., mulgēre; AS., meolc;
55 11 " mollis; for mollis,
4*b* " *μεγ-άλη* for *μεγ-άλα*
1*b* " mihhil for mihil
56 2 " nogas for nûgus
3 " nackend for nakend
9 " çā for ça
11 omit: *ka* or
15*b* read: voice for speak
12*b* " *νάν-να* for *νάν-νη*
10*b* " nēþla for neþla Also nēt-us for net-us
9*b* " *snē-nē for *snē-nĕ
6*b* " nara (nala, reed), man, Also *ἀνήρ* for *ανήρ*
57 2 " nāyá for nāyā
9 " *ártha* for *arthá*
9*b* " neāh, neāhst for neah, naihst

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Page 58, line	1	read:	γῦρος; Lat., gȳrus,
	2	"	naç, be lost, +vi, away, +ra; or neḵ+ *uiloa.*
	6	add:	Cf. neneloa, "mix," and ezneloa, to make "bloody."
	16	read:	νηδ-ύς for νήδ-υς
	17	"	nē or nōn; Gr., νή
	18	"	kṛ for gṛ
	12*b*	"	nē for næ
59	1	"	lū-ni for lū-ni-ṣ
	6	"	çā(s) for çā
	8	"	mūtus for mutus
	12*b*	add:	Also Goth., áukan, "increase"; O. Ir., ōg, "whole."
	1*b*	read:	ἴλλω for ἰλλω
60	9	"	ἀνά for ἀνα
	12	"	ochs for ochse
	17	"	ὀδὸς for ὄδος
	13*b*	"	óṣadhī for ósadhi Add: Cf. āiksavá, sugar cane.
	3*b*	"	vṛṣa- for vṛshá-
	1*b*	"	*quauhchimal* for *quauchi-malli*
61	2–3	"	*toya*-vant, provided with water;
	10	"	samī-*pa* for sami-*pa*
	3*b*	"	būg-an for bug-an
62	1	"	**pacyotl** for **paçyotl**
	3–4	"	fōn, *fōh-an, fasten;
	16	"	*op-ped-um for op-ped-um
	18	insert	(new line): **pal-ani,** rot; Lat., per-īre.
63	12	"	(after Skr.): paṇ,
	9*b*	read:	pac for pac+ka
	3*b*	"	πέ-πα-μαι, have kept for πε-πά-μαι, kept
64	15	"	práthate for pratháte
	18	"	pō-tus for po-tus
	13*b*	"	vṛ(t), *u̯r(t), to roll.
	10*b*	"	sitá for syatá
65	6	"	πετ-άννυμι, spread, open; πέτ-ομαι, fly; πατ-άσσω, strike,
	16	add	(after exceedingly;): *pṛ-u̯a

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Page 65, line	9*b*	read:	jaḍatā for jāḍrā
	4*b*	"	prīṇáti for prīnáti
66	3	"	bṛháti for bṛṅháti
	5	"	*pino*yotl for *pina*yotl
	8	"	pīpi-o for pipi-o
	9	"	pipīlá for pipíla
	12	"	πικ-ρὸς for πίκ-ρος
	15*b*	"	bíja for bija
	14*b*	"	bījaka for bijaka
	8*b*	"	φη-μὶ for φή-μι
67	10*b*	"	pū-ti for pū-ti-ṣ
	7*b*	"	bhās for bhas
	1*b*	"	red (garment) for red garment
68	6	"	hṛṇīté for hṛnīté
	11	"	Skr., çṛṅgín for Avestan, çṛva
	3*b*	"	hlinian for klinian
69	4	"	ceṣṭ for ceṣt
	5	"	lū, lunáti for lu, lónati
	13	"	Eng., Fr., and Sp., *gonfalon;*
	15	"	kṛṇátti for kṛṇti
	14*b*	"	stā-n for sta-n
	13*b*	"	ἐ-κε-ῖ for ε-χε-ι
	7*b*	"	caesaries for cessaries
	1*b*	"	*ci*-tra; OHG., *hiu*-tu, O. Sax., *hiu*-diga,
70	16	insert	(after door): qui+áva-añc, down (úd-añc, up);
	17	read:	*quiauatl* for *auatl*
	12*b*	"	aha for ahwa
71	9*b*	"	dṛbh for dhṛb
	2*b*	"	dhātṛ́, the giver; Avest., dātar-,
72	6*b*	"	tā̊sām for tā́ṣām
	3*b*	"	*tīkṣṇá* for *tikṣná*
73	4	"	ὄλολ-οι, "howlers";
	12	"	stīg-o for stig-o
	17	"	tīkṣṇāñçu for tikṣṇāçu
	13*b*	"	çāçáda for çāçádi
	11*b*	"	-weorc for -weōrc [See below, Editor's Note.]
	2*b*	"	cáyati for ciyéti Also *2 tel-* for *telchiua*

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Page 74, line 8 read: tȳman for tyman
1*b* " δί-δω-μι for δι-δώ-μι Also -dha, or -dhā for dha, or dhā
75 12 " δῖος for διός
13 " dīvus, dīus for divus, dius
14*b* " tapor for tapur
76 3 " styāyate for styā́yeti
8 " dása for dasá
9 " vit-ki for vit-ka
16*b* " fūmus for fumus
15*b* " dī, dīdī for dīdi
7*b* " sañj for sañj
77 2 " dīco for dico
4 " dḯkṣate for dīkṣeti
13 " dḯṅhati for dḯnhati
15 " δῖος, *δῖϝος; Lat., dīvus
16*b* " duhitṛ́ for duhitár
78 4 " ga-tarh-jan for ga-tark-jan
13 " *drāk* for *drāka* Also δι-δρά-σκω for δράω
13*b* and 11*b* read: tra for tla
8*b* read: *çuda for çuḍa [See below, Editor's Note.]
3*b* " līs, lītis for lis, litis
79 2 " vājáyati for vajáyati
3 " vigeo for vegeo
7 " mántra for mantrá
12 insert: Lat., min-or;
15 read: tala for talas
10*b* " anew for to renew Add: Lat., novu-s;
80 1 " ὄγκος for ύγκος
7 " tra+bhrāj, bhrā́jate;
12 " perendiē for perendie
13 " stammering, or for or
5*b* " piṅçáti for pinçáti
81 7 " tiráti for tiṛáti Omit: , flee
8 " dídeti for dideti
10 " tṛṣ for trṣ Also *torseo for *torset
14*b* " *tla-uel-e* for *tla-uel-l*
82 12 " λυγ-ρός; Lat., lūgeo.

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Page 82, line 16 read: ἠὼς for ηώς
17 " tla-*ui*-zcalli for tla-*uizc*-alli
18 " ví for ví,
15*b* " tra for tla
13*b* " vrīhí for vṛhí
5*b* " idh for īdh
83 4 " on; Ger., zielen, aim at, +*il-t;*
5 " ἔρα-ζε for ἔραζε
12 " teuhctli for teuctli
13 add: O. Lat., tongēre; *teñĝ; ma-toca, touch.
15 read: tok-ma for tok-man
16 " *drown*, for *drown;*
16*b* " tāḍaka for tāḍka
11*b* " dhūsara for dhūsvara
6*b* " tojati for tujati
3*b* " τάλας for τάλος Also þulan for tulan
84 8 " *tur-yá* for *tur-yá*
12 " τομά for τόμα
13*b* " τύλος for τύλις
12*b* " thūma for thuma
9*b* " dunóti for dūnóti
6*b* " ἴδος for ἴδος
85 14 " quiauitl for quauitl
16 " seg-ù for seg-ū
13*b* " dṛṇáti, to split; Goth., go-taír-a; Lith., dir-iù;
86 7 " ἰμὰς for ἵμας
15 " svādú for svadús
16 " ἡδύς for ἥδύς
13*b* " αἷμα for αἵμα
3*b* " vyac for vyaç
87 10 " πῆχυς for πήχυς
13*b* " ru for rū
12*b* " rȳn for rhyn
2*b* " vaṅçá for vañçá
88 9 " vṛṇīté for vṛnīté
10 " *gh^{v}el for *g^{v}hel Also ἐ-θέλ-ω for ε-θέλ-ω
14 " mṛ-t-yú for mṛ-t-yú-ṣ
15 " aš-ber^{e}-t- for as-ber^{e}-t

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Page 88, line 16*b* read: juhóti for guhóti
14*b* " geōt-an for geŏt-an
13*b* " jakṣ for jask
9*b* " fū-ti-s for fu-ti-s
8*b* " ; or for +
5*b* " ἕτος for ἑτος
89 3 " οἶκος for οἶκος
4 " vīcīnus for vicinus
14 " AS., *wimpel for AS. wimpal
11*b* " ἶ-ς for ἶ-ς Also vī-s for vi-s
10*b* " ὠθέω for ὀθέω
90 17 " dhik+kṛ for dhik-kṛ
15*b* " viç for viṣ
12*b* " horrēre, for horrere
9*b* " vijáte for vijéti
91 1 " dārú for darú
2 " *ĝon-, beget, *ĝón-o-,
7 " á-mārk-ṣ-am; Gr., ἤ-μερξ-α;
8 " á-dikṣ-i; Gr., ἔ-δειξ-α;
12*b* " puthyati for pothyáti
8*b* omit: to be
92 7 read: çṛṇáti for çīrṇáti
10–11 " çiṣ, çinásti, çiṣṭá,
14 " *si for si
13*b* " vīv-us for viv-us
12*b* " cwyc for cwucu
2*b* " kárṣati for karṣati
93 2 " sĕ-tas for se-tas
15*b* " skēwjan; AS., sceotan;
10*b* read: Çipi-viṣṭá for Cipi-viṣṭá
7*b* omit: grass,
6*b* read: çíphā for cípkā
94 4 " sūc-us, juice; OHG., sūg-u; AS., sūc-e,
6 " sūrí for surí
12 " sāla-sa for sāla-s
15 " rūga for ruga
15*b* " jñā, jānáti for jánati
9*b* " kṣáyati for kṣāyátī
5*b* " , hita for dhita

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Page 95, line 3 read: rēg-is for reg-is
13 " mṛdú for mṛsna
14 " ni-a for mi-a Add: Skr., ramaṇīa.
11*b* " **ϑθ-μ-* for **υθ-σμ-* Insert (after battle): Avest., yao-š, leagued;
7*b* add: Lith., pal̃-va-s, tawny.
96 4 read: rájas for rajás
6 " own for self
11 " *ἀεὶ* for *αεί*
12 " aivs, time for aiw, ever
15 " vaurkjan; OHG., werch;
17 " wirk-u for wirk
15*b* " ṛñj, ṛñjáti for rñj, rñjáti
14*b* " *ὀρέγω*; Lat., rectē, right; OHG., reht; AS., rec-can;
8*b* " -eṣati for éṣṭa
1*b* " vṛṇóti for vṛnóti
97 13*b* " *ἐλύω* for *ελύω*
7*b* " tāmasa for tāmas
6*b* " dēmar for demar Omit: Zend, voya;
98 4 " roubōn for rouban

Morphology

7 1 " *a* for *ā*
9 " ánu for ána
11 " *ἀναβαίνω, ἀνέβην* for *αναβαίνω, ανέβην*
8 2 " *u̯eĝh for *ueĝh
5 " phaṇati for phañati
8 " çócati for çóçati
9 " gā́yati for gáyati
11 " çinásti for çinā́ṣṭi
12 " styāyate for styā́yeti
14 " *ἀμάω* for *αμάω*
17 " tókman for tṓkman
10*b* " paç for paçyáti
7*b* " uṣṭá for ustus
6*b* " bīja for bíja (bijá?)
5*b* " çvásiti for cvásiti

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Page	8, line	2*b*	read:	*μορ-μύρ-ω* for *μυρ-μύρ-ω*
	9	1	"	bhaṣati for bhasā́mi
		9	"	drúhyati for druhyáti
		14*b*	"	nāma grah for nāma-grah
		10*b*	"	gṛbhṇā́ti for gṛbhnáti Also kṛṇátti for kṛ́nti
		9*b*	"	grathnā́ti for grathnáti
		7*b*	"	luṭhati for luthā́ti
		3*b*	"	chinátti for chinnáti
	10	1	"	*mal or mṛḍnāti for mal or *mṛdnáti
		3–4	"	mad, mándati for man, mamátti
		5	"	tȳman for tyman
		11	"	nañkṣyati for nañksyáti
		12	"	daṅç for dañc Also tahjan for taihjan
		13	"	açnóti for açnṓti
		15	"	mi-nu-o for min-u-o
		6*b*–5	"	váh-ni, a beast of draught; yó-ni, lap; me-ní, a missile.
		2*b*	"	kā́ṣati for kásati
	11	7	"	çūla for çula
		10	"	dādharti for dharti
		14	"	gṛṇā́ti for gṛnáti
		16	"	çlíṣyati for cliṣyati
		17	"	clīno for clino
	12	4	"	svādú; Gr., *ἡδύ-ς*
		11	"	çaraṇá for çaraná
		13*b*	"	sáhate for sā́hate
		8*b*	"	*ἀμάω* for *αμάω*
		4*b*	"	styā́yate for styáyeti
	13	2	"	ṛṇóti for ṛnóti
		3	"	*ὦρ-το* for *ὤρ-τω*
		6	"	āyú for ayú
		7	"	*ἡύς* for *ἧυς*
		9	"	*ma for mā
		11	"	prīmus for primus
		1*b*	"	styā́yate for styáyeti
	14	2	"	çṛṇā́ti for cṛnáti
		3	"	çiçā́ti for çícāti
		7	"	*φαίνω* for *φάινω*

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Page 14, line 8 read: pīvan for pivan
8*b* " pū-ti for pu-tis
5*b* " lū-ni, a loosing; Goth., lū-n-s,
15 9 " bhara-ṇa for bhara-na-m
13 " gurú for garús
8*b* " mṛṇáti for mṛṇấti
6*b* " dakṣ-iṇa for dakṣ-ina-s
5*b* " beechen (*oaken*); Lat., fāg-inu-s
16 5–6 " da-dṛç-é for di-dhi-e
6 " dídheti for dhấyati
7 " *dhə; coua, to buy, krī.
17 12*b* " φεύγω to flee, φεύγ-ε-σκον
19 7–8 " bhara-tấ; Gr., φέρ-ε-τε;
13 add: Cf. noun *r*-forms (Brug., III, § 224).
15*b* " Cf. *-s-* or *-dh-* in extensions of the perfect (Brug., IV, p. 391).
20 3–4 read: -dhi-tá-s (hi-tá-s); Gr., θε-τὸ-ς,
9 " do-ti for dṓti
15 " çúṣ-ka-s, dry; ánu-ka-s,
21 2*b* " es-t, ἐσ-τὶ for es, ἐμὶ
22 9–10 omit: to be
15 read: rel. pro. for pro.
8*b* " *paç for páçyati
6*b* " ə for ɔ in *dhoi and in the footnote also.
5*b* " páti for patí
4*b* " πίνος for πινός
23 8*b* " dáça-mās-ya, lasting ten months; Gr., ἔμ-μην-ο-ς,
4*b* " vāk-yà-m for vấc-iya-m
24 7 " οἰνὴ, ace; Lat., ūnus.
9 " εἴ-κοσι for ἐί-κατι
11 " trē-s for tre-s
7*b* " prī-mus for pri-mus
1*b* " gṛbhṇấti for gṛbhnấti
25 8 " φη-μὶ for φή-μι
12*b* " ápi for apí
10*b* " rájas for rajás
8*b* " phaṇati for phanati
7*b* " paĩ-va for pal-va

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Page 25, line 4*b* read: baṅh for bah
3*b* " παχὺς for πάχυς
26 2 " bhramati for bhṛ́mati
3 " bhī for bhi
13*b* " *ĝhrod for *ghṛod
10*b* " ghrā, jíghrati for gṛhā, jígharti
9*b* " cáyati for cáyeti
5*b* add: Cf. Brugmann's theory concerning Skr. *h*, etc. (*op. cit.*, I, pp. 347, 408).
3*b* read: rec-tē for rec-te
2*b* " rájas for rajás
1*b* " lumpáti for lumpāti
27 4–6 " ὥρο-ς, year, season; ὥρα, season, hour; Goth., jēr, year; Eng., year, yore; Gr., *αἰϝεὶ, ἀεί; Lat., aevum; Eng., aye, ever; yea, yes; Gr., ἦ, surely; Goth., ja;
10 " *χάω, χάσκω for χάω Also *i̯uu̯n̥k̂o-s for *iuu̯n̥k̂o-s
14 " virg-ultum for virgu-lum
16 " εἶνις for ἓνις
12*b* " *ĝhrod for *ĝhṛod
28 1 " *u̯n̥n for *un̥n Also vanóti for vanáti
2 " hold dear for meekly
5 " n̥- for -n̥-
6 " ἀ-, ἀν-; Skr., a-, an-; Lat., in-; Ger., un-;
7 " *i̯uu̯n̥-k̂o-s for *iuu̯n̥k̂o-s
10 " Gr., νη-; Lat., ne-, nē-, nē;
16 " *-nt-*: Skr., -ánti, -áti; Gr., -āσι, -νται;
16*b*–15 " Mex., cem-man-ca, eternal; ce-mana-uatl, the universe; *se*-mana-, *it* abides, is immanent, (?)+
13*b* " στρῶ-μα for στρω-μα
11*b* insert (after corn-stalk): *aug; O. Ir., ōg, "uninjured"; Goth., áukan, "to increase";
9*b* add: ulva, "covered." Also, read: wool, for wool.
8*b* read: mā́ṅs for mā́n̥s
7*b* " μήν for μῆν

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Page 29, line 8*b* read: *də for *dɔ
5*b* " nīti-jñá for niti-jña
4*b* " açvamiṣṭi for açvamisti
2*b* " tongēre for tongere
30 4 " astam-ḗti for astam-ēti
10 " puthyati for pothyáti
17 " vid-man-e (dat. as inf.),
18 add: Cf. Brug., III, p. 62.

Mexican Aryan-Sibilants

7 2*b* read: al-*ac*-tic, for al-*ac*-tic'
17 7 " *sụesr for *suesr

EDITOR'S NOTE. The above list is not exhaustive. It was compiled from the author's marginal notes with the addition of such corrections as could be readily made. A few cases of *sh* for *ṣ* in Sanskrit have been passed over, as being sufficiently clear, and a few long vowels before -ns- etc., in Latin, have not been indicated. Three or four words either have not been found or have not been properly identified. Brugmann cites OHG., hadu-, but he does not seem to have Hadu-wich or *kot*-ora (see *Comp. Vocab.*, p. 73, l. 12*b*). Again (*ibid.*, p. 78, l. 8*b*), it is plain that çuḍa has a wrong d; but no such form as çuda, çuḍa, or çudānta could be found in the Sanskrit lexicon (Bŏhtlingk). What he had in mind is not clear. Some errors may have been overlooked, especially in the unfamiliar Mexican; for there was not time to verify all the forms. Mr. Denison could not do such work without severe physical pain, and he was therefore disposed to trust to his memory, though he seems to have been careful to have his Mexican words correctly spelled. In addition to this, his authorities differed in their systems of writing or of transliteration, and in some cases consistency would have been well-nigh impossible even for an expert. Many corrections were made necessary by this last peculiarity, and it is hardly fair to judge Mr. Denison by technical standards in these matters. His Sanskrit studies were subject to a serious handicap, and the wonder is that he succeeded as well as he did. Indices have not been revised.

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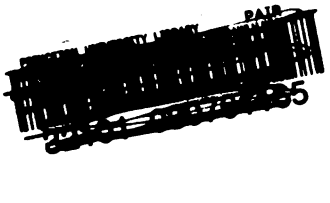

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